



# **STIC Search Report**

## **EIC 1700**

**STIC Database Tracking Number: 192867**

**TO: Michael Bernshteyn**

**Location: REM 10A34**

**Art Unit : 1713**

**June 15, 2006**

**Case Serial Number: 10/747985**

**From: Kathleen Fuller**

**Location: EIC 1700**

**REMSEN 4B28**

**Phone: 571/272-2505**

**Kathleen.Fuller@uspto.gov**

### **Search Notes**

I searched this with 11/167953 and then did a subset search for the more refined structure of claim 13. There were 547 structures so I had to limit with the crosslinker of at least 3 acrylates groups. There were 46 polymers and 27 CA references form the polymers.



# STIC Search Results Feedback Form

**EIC17000**

Questions about the scope or the results of the search? Contact the EIC searcher or contact:

Kathleen Fuller, EIC 1700 Team Leader  
571/272-2505 REMSEN 4B28

## Voluntary Results Feedback Form

- I am an examiner in Workgroup:  Example: 1713
- Relevant prior art found, search results used as follows.

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art *not* found:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention

Comments:

# SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: MICHAEL BERNSTEIN Examiner #: 81515 Date: 06/14/06  
 Art Unit: 1713 Phone Number 30 2-2411 Serial Number: 10/747,985  
 Mail Box and Bldg/Room Location: Rm. 10A34 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc. if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Polymerizable compositions for optical articles  
 Inventors (please provide full names): David Olson, Brandon Berg, Randy Larson

Earliest Priority Filing Date: 12/30/2003

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please, try to find monomers according i) and ii)  
in claim 13.

Thank you  
M. Bernstein

## STAFF USE ONLY

Searcher: R. Fuller  
 Searcher Phone #: \_\_\_\_\_  
 Searcher Location: \_\_\_\_\_

## Type of Search

NA Sequence (#) \_\_\_\_\_  
 AA Sequence (#) \_\_\_\_\_  
 Structure (#) 4

## Vendors and cost where applicable

STN ✓  
 Dialog \_\_\_\_\_  
 Questel/Orbit \_\_\_\_\_

=> file reg  
 FILE 'REGISTRY' ENTERED AT 14:54:01 ON 15 JUN 2006  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 14 JUN 2006 HIGHEST RN 887828-19-5  
 DICTIONARY FILE UPDATES: 14 JUN 2006 HIGHEST RN 887828-19-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

\*\*\*\*\*  
 \*  
 \* The CA roles and document type information have been removed from \*  
 \* the IDE default display format and the ED field has been added, \*  
 \* effective March 20, 2005. A new display format, IDERL, is now \*  
 \* available and contains the CA role and document type information. \*  
 \*  
 \*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> file hcaplu  
 FILE 'HCAPLUS' ENTERED AT 14:54:06 ON 15 JUN 2006  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

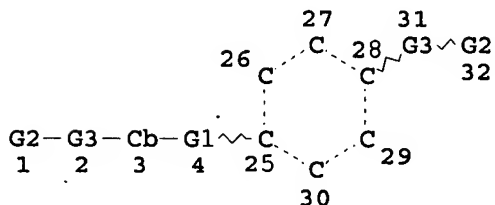
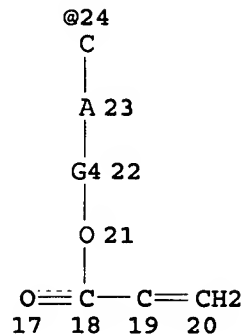
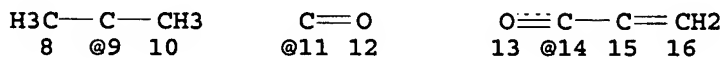
FILE COVERS 1907 - 15 Jun 2006 VOL 144 ISS 25  
 FILE LAST UPDATED: 14 Jun 2006 (20060614/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que 131

L4 STR



*8,214 structures from  
this query covering  
both cases.*

VAR G1=9/CH2/11/S

VAR G2=14/24

VAR G3=O/S

REP G4=(0-15) A

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY UNS AT 3

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

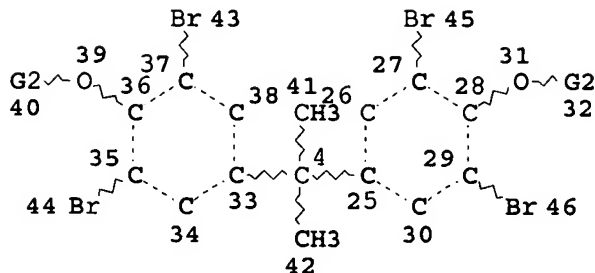
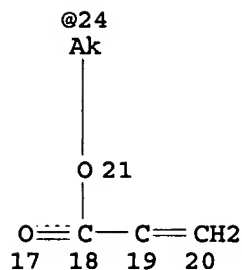
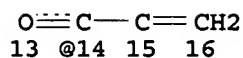
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 29

STEREO ATTRIBUTES: NONE

L6 8214 SEA FILE=REGISTRY SSS FUL L4

L8 STR



*547 structures for  
covering  
monomer a  
10/747985.*

VAR G2=14/24

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

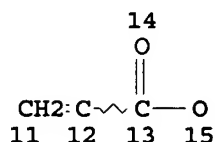
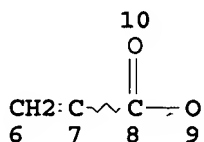
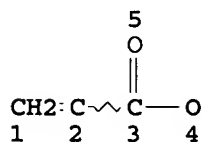
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE

L11 547 SEA FILE=REGISTRY SUB=L6 SSS FUL L8

L17 STR



NODE ATTRIBUTES:

CONNECT IS E2 RC AT 4

CONNECT IS E2 RC AT 9

CONNECT IS E2 RC AT 15

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

L20 1612 SEA FILE=REGISTRY SUB=L6 SSS FUL L17

L21 46 SEA FILE=REGISTRY ABB=ON L20 AND L11

L31 27 SEA FILE=HCAPLUS ABB=ON L21

*27 CA references*

*Subst search  
3 acrylic  
groups  
per claim 13  
part b*

*46 structures with  
monomer of part a  
and part b*

=> d l31 ibib abs ind hitstr 1-27

L31 ANSWER 1 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:409704 HCAPLUS

DOCUMENT NUMBER: 144:413979

TITLE: Multilayer polymeric optical films incorporating cyclic olefin copolymers

INVENTOR(S): Chien, Bert T.; Strobel, Joan M.; Strobel, Mark A.; Jones, Clinton L.; Getschel, Joel A.; Bosl, Ellen R.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 21 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006093845	A1	20060504	US 2004-976675	20041029
US 2006093846	A1	20060504	US 2005-250933	20051014
WO 2006049951	A1	20060511	WO 2005-US38367	20051025
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.:

US 2004-976675 A2 20041029

US 2005-250933 A 20051014

AB The films comprises: (A) a norbornene-based cyclic olefin layer and (B) a curable layer attached to A, wherein B comprises a curable material. Thus, a curable material B was coated on Topas 6013 film and cured under UV to give a title films, wherein B comprised: 30.0% RDX 51027 (brominated epoxy diacrylate), 20.0% EB 220 (hexafunctional aromatic urethane acrylate oligomer), 37.5% BR 31 (2-(2,4,6-tribromophenyl)-1-ethanol acrylic ester), 12.5 photomer 4035 (2-phenylethyl acrylate), 0.3 pph FC 430 (fluorosurfactant), 1.0 pph Darocure 1173 (photoinitiator), and 1.0 pph Lucirin TPO (photoinitiator).

INCL 428520000; 428523000; 428522000; 427569000

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 73, 75

ST norbornene cyclic polyolefin curable multilayer optical film

IT Coating materials

(abrasion-resistant; multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT Optical instruments

(diffusers; multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT Synthetic rubber, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(ethylene-glycidyl methacrylate-Me acrylate, Lotader AX8900; multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT Adhesives

Antireflective films  
Coating materials  
Crosslinking  
Lamination  
Liquid crystal displays  
UV stabilizers  
    (multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT Polyesters, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
    (multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT Optical films  
    (multilayer; multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT Cycloalkenes  
RL: TEM (Technical or engineered material use); USES (Uses)  
    (polymers; multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT Films  
Polarizing films  
    (reflective; multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT 26007-43-2, Topas 6013  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
    (Topas 8007; multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT 9020-32-0  
RL: TEM (Technical or engineered material use); USES (Uses)  
    (assumed monomers; multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT 7473-98-5 189146-15-4, Lucirin TPO  
RL: CAT (Catalyst use); USES (Uses)  
    (multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT 11114-17-3, FC 430  
RL: NUU (Other use, unclassified); USES (Uses)  
    (multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT 884530-56-7  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
    (multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT 9020-73-9, Polyethylene naphthalate 145808-00-0, Admer SE 810  
147035-49-2, Admer SE 800 177933-75-4, Bynel 1123 211049-46-6, Bynel 21E533  
RL: TEM (Technical or engineered material use); USES (Uses)  
    (multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT 884530-56-7  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
    (multilayer polymeric optical films incorporating cyclic olefin copolymers)

RN 884530-56-7 HCAPLUS  
CN 2-Propenoic acid, (1-methylethylidene)bis(2,6-dibromo-4,1-phenylene) ester, polymer with (4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-bis[[1-oxo-2-propenyl]oxy]methyl]-3,1-propanediyl]] di-2-propenoate,

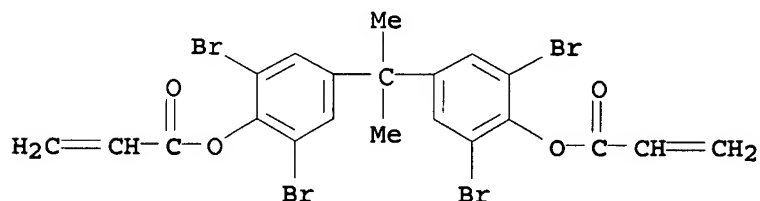


2-phenoxyethyl 2-propenoate and 2-(2,4,6-tribromophenoxy)ethyl  
2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 55205-38-4

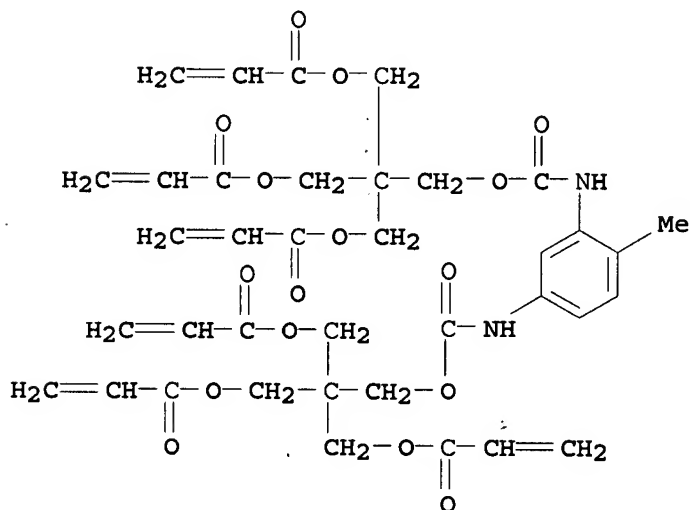
CMF C21 H16 Br4 O4



CM 2

CRN 50843-44-2

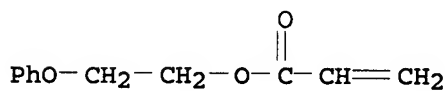
CMF C37 H42 N2 O16



CM 3

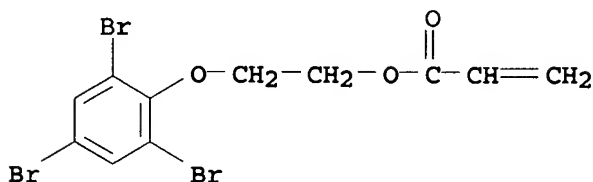
CRN 48145-04-6

CMF C11 H12 O3



CM 4

CRN 7347-19-5  
CMF C11 H9 Br3 O3



L31 ANSWER 2 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2006:409703 HCAPLUS  
DOCUMENT NUMBER: 144:413978  
TITLE: Multilayer polymeric optical films incorporating  
cyclic olefin copolymers  
INVENTOR(S): Chien, Bert T.; Strobel, Joan M.; Strobel, Mark A.;  
Jones, Clinton L.; Getschel, Joel A.; Bosl, Ellen R.  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 24 pp., Cont.-in-part of U.S.  
Ser. No. 976,675.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006093846	A1	20060504	US 2005-250933	20051014
US 2006093845	A1	20060504	US 2004-976675	20041029
WO 2006049951	A1	20060511	WO 2005-US38367	20051025
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.: US 2004-976675 A2 20041029  
US 2005-250933 A 20051014

AB The films comprise: (A) a norbornene-based cyclic olefin layer and (B) a curable layer attached to A, wherein B comprises a curable material that exhibits a level of adhesion to A  $\geq 1B$ . Thus, a curable material B was coated on Topas 6013 film and cured under UV to give a title films, wherein B comprised: 30.0% RDX 51027 (brominated epoxy diacrylate), 20.0% EB 220 (hexafunctional aromatic urethane acrylate oligomer), 37.5% BR 31 (2-(2,4,6-tribromophenyl)-1-ethanol acrylic ester), 12.5 Photomer 4035 (2-phenylethyl acrylate), 0.3 pph FC 430 (fluorosurfactant), 1.0 pph Darocure 1173 (photoinitiator), and 1.0 pph Lucirin TPO (photoinitiator).

INCL 428520000; 428523000; 428522000; 427569000; 427162000

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 73, 75

ST norbornene cyclic polyolefin curable multilayer optical film

IT Coating materials  
(abrasion-resistant; multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT Optical instruments  
(diffusers; multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT Synthetic rubber, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(ethylene-glycidyl methacrylate-Me acrylate, Lotader AX8900; multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT Nanoparticles  
(inorg.; multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT Adhesives  
Antireflective films  
Coating materials  
Crosslinking  
Lamination  
Liquid crystal displays  
Optical imaging devices  
UV stabilizers  
(multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT Polyesters, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT Optical films  
(multilayer, laminated; multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT Cycloalkenes  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polymers; multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT Films  
(reflective; multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT 26007-43-2, Topas 6013  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(Topas 8007; multilayer polymeric optical films incorporating cyclic olefin copolymers)

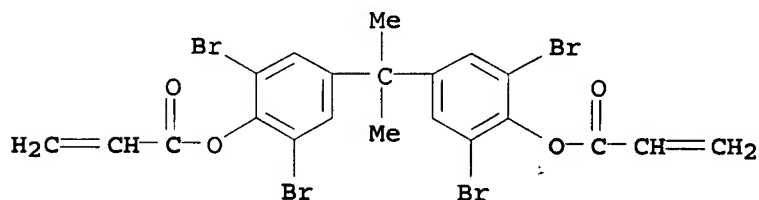
IT 9020-32-0  
RL: TEM (Technical or engineered material use); USES (Uses)  
(assumed monomers; multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT 7631-86-9, Nalco 2327, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(colloidal; multilayer polymeric optical films incorporating cyclic olefin copolymers)

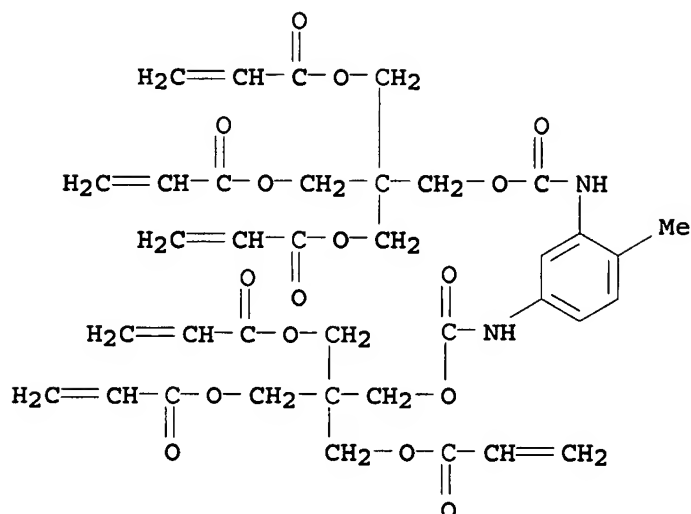
IT 7473-98-5 84434-11-7, Lucirin TPO-L 189146-15-4, Lucirin TPO  
RL: CAT (Catalyst use); USES (Uses)  
(multilayer polymeric optical films incorporating cyclic olefin copolymers)

IT 1314-23-4, Zirconium oxide, uses 2226-96-2, Prostab 5198 2530-85-0, Silane A174 180189-72-4, Silquest A 1230  
RL: MOA (Modifier or additive use); USES (Uses)  
(multilayer polymeric optical films incorporating cyclic olefin

copolymers)  
IT 11114-17-3, FC 430  
RL: NUU (Other use, unclassified); USES (Uses)  
(multilayer polymeric optical films incorporating cyclic olefin  
copolymers)  
IT 884530-56-7  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(multilayer polymeric optical films incorporating cyclic olefin  
copolymers)  
IT 9020-73-9, Polyethylene naphthalate 145808-00-0, Admer SE 810  
147035-49-2, Admer SE 800 177933-75-4, Bynel 1123 211049-46-6, Bynel  
21E533 884530-58-9  
RL: TEM (Technical or engineered material use); USES (Uses)  
(multilayer polymeric optical films incorporating cyclic olefin  
copolymers)  
IT 884530-56-7  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(multilayer polymeric optical films incorporating cyclic olefin  
copolymers)  
RN 884530-56-7 HCAPLUS  
CN 2-Propenoic acid, (1-methylethylidene)bis(2,6-dibromo-4,1-phenylene)  
ester, polymer with (4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-  
bis[[[(1-oxo-2-propenyl)oxy]methyl]-3,1-propanediyl]] di-2-propenoate,  
2-phenoxyethyl 2-propenoate and 2-(2,4,6-tribromophenoxy)ethyl  
2-propenoate (9CI) (CA INDEX NAME)  
CM 1  
CRN 55205-38-4  
CMF C21 H16 Br4 O4



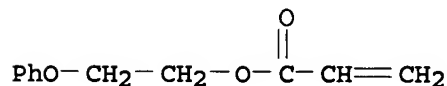
CM 2  
CRN 50843-44-2  
CMF C37 H42 N2 O16



CM 3

CRN 48145-04-6

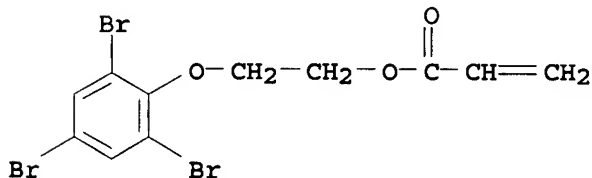
CMF C11 H12 O3



CM 4

CRN 7347-19-5

CMF C11 H9 Br3 O3



L31 ANSWER 3 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:53740 HCAPLUS

DOCUMENT NUMBER: 144:138591

TITLE: Polymerizable compositions comprising nanoparticles

INVENTOR(S): Jones, Clinton L.; Olson, David B.; Goenner, Emily S.;  
Kolb, Brant U.; Brady, John T.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 44 pp.

CODEN: PIXXD2

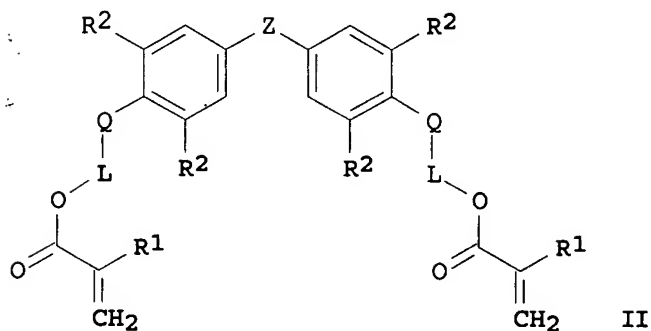
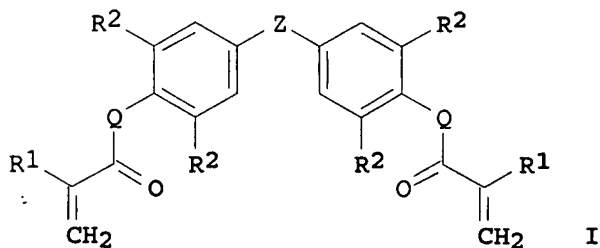
DOCUMENT TYPE:

Patent

LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 5  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006007286	A2	20060119	WO 2005-US19774	20050606
WO 2006007286	A3	20060223		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 2005151119	A1	20050714	US 2004-939184	20040910
US 2006055918	A1	20060316	US 2004-938006	20040910
US 2005200278	A1	20050915	US 2005-78145	20050311
PRIORITY APPLN. INFO.:				
			US 2004-870366	A 20040617
			US 2004-938006	A 20040910
			US 2004-939184	A 20040910
			US 2005-78145	A 20050311
			US 2003-662085	A2 20030912

GI



AB The invention refers to a polymerizable compns. comprising at least 15

weight% monomers I and/or II [R1 = H or methyl; R2 = H or Br; Q = O or S; Z = -C(CH3)2-, -C(O)-, -S-, S(O)- or S(O)2; L = linear or branched C2-12 alkyl wherein the C chain may be substituted with one or more O groups and/or the C atoms are substituted with one or more hydroxyl groups] at least 10 weight% inorg. nanoparticles and an optical crosslinking agent, particularly useful for brightness-enhancing films.

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)  
Section cross-reference(s): 38, 74

ST polymer optical film nanoparticle brightness enhancing

IT Liquid crystal displays  
Nanoparticles  
Optical films  
Optical imaging devices  
(polymerizable compns. comprising nanoparticles for brightness-enhancing films)

IT 1314-23-4, Zirconia, uses 7631-86-9, Silica, uses 873306-65-1  
RL: DEV (Device component use); USES (Uses)  
(polymerizable compns. comprising nanoparticles for brightness-enhancing films)

IT 873306-65-1  
RL: DEV (Device component use); USES (Uses)  
(polymerizable compns. comprising nanoparticles for brightness-enhancing films)

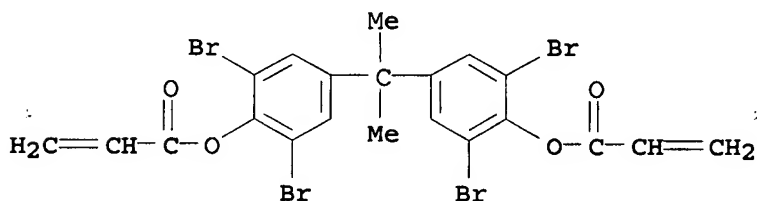
RN 873306-65-1 HCAPLUS

CN 2-Propenoic acid, 2-(hydroxymethyl)-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with (1-methylethylidene)bis(2,6-dibromo-4,1-phenylene) di-2-propenoate and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

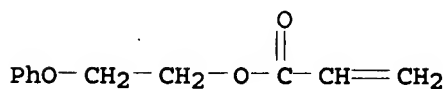
CRN 55205-38-4

CMF C21 H16 Br4 O4



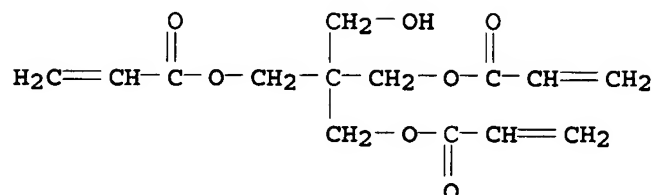
CM 2

CRN 48145-04-6  
CMF C11 H12 O3



CM 3

CRN 3524-68-3  
CMF C14 H18 O7



L31 ANSWER 4 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:611587 HCAPLUS

DOCUMENT NUMBER: 143:142445

TITLE: Durable optical element

INVENTOR(S): Jones, Clinton L.; Kolb, Brant U.; Goenner, Emily S.;  
Brady, John T.; Haak, Christopher A.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 23 pp., Cont.-in-part of U.S.  
Ser. No. 662,085.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005151119	A1	20050714	US 2004-939184	20040910
US 2005059766	A1	20050317	US 2003-662085	20030912
WO 2005026793	A1	20050324	WO 2004-US29603	20040913
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1664860	A1	20060607	EP 2004-788684	20040913
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
US 2005200278	A1	20050915	US 2005-78145	20050311
WO 2006007286	A2	20060119	WO 2005-US19774	20050606
WO 2006007286	A3	20060223		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF,				



CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM,  
KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG,  
KZ, MD, RU, TJ, TM

## PRIORITY APPLN. INFO.:

US 2003-662085 A2 20030912  
US 2004-870366 A2 20040617  
US 2004-938006 A2 20040910  
US 2004-939184 A 20040910  
WO 2004-US29603 W 20040913  
US 2005-78145 A 20050311

AB Durable optical films are described which comprise a polymerized optical film structure having a microstructured surface and a scratch contrast ratio value in the range 1.0-1.15. Durable optical films are also described which comprise a polymerized optical film structure having a microstructured surface comprising a plurality of rounded prism apexes extending along a first surface and a scratch contrast ratio value in the range 1.0-1.65. The polymerized optical film structure may comprise a plurality of surface-modified colloidal nanoparticles.

IC ICM C09K019-00

INCL 252299100

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

ST durable optical film microstructured surface

IT Nanoparticles

Optical films

(durable optical films with microstructured surfaces)

IT 134394-90-4DP, reaction products with silica nanoparticles

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(durable optical films with microstructured surfaces)

IT 1314-23-4D, Zirconia, reaction products with surface modifiers

2530-85-0D, Silane A174, reaction products with silica nanoparticles

7631-86-9D, Silica, reaction products with surface modifiers

180189-72-4D, Silquest A 1230, reaction products with silica nanoparticles

848504-05-2

RL: TEM (Technical or engineered material use); USES (Uses)

(durable optical films with microstructured surfaces)

IT 848504-05-2

RL: TEM (Technical or engineered material use); USES (Uses)

(durable optical films with microstructured surfaces)

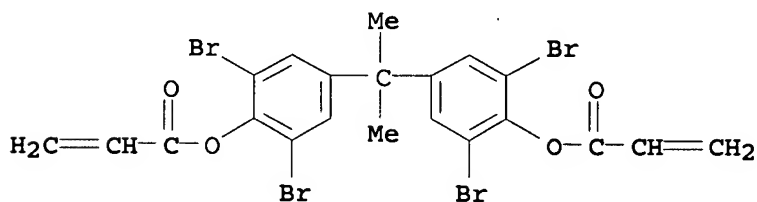
RN 848504-05-2 HCAPLUS

CN 2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with (1-methylethylidene)bis(2,6-dibromo-4,1-phenylene) di-2-propenoate and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

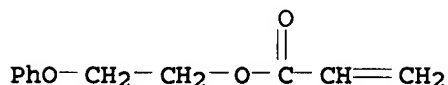
CRN 55205-38-4

CMF C21 H16 Br4 O4



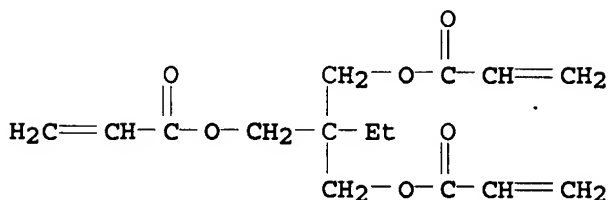
CM 2

CRN 48145-04-6  
CMF C11 H12 O3



CM 3

CRN 15625-89-5  
CMF C15 H20 O6



L31 ANSWER 5 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:592001 HCAPLUS

DOCUMENT NUMBER: 143:98171

TITLE: Polymerizable (meth)acrylate compositions for  
brightness enhancing films

INVENTOR(S): Olson, David B.; Berg, Brandon T.; Larson, Randy A.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: U.S. Pat. Appl. Publ., 11 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

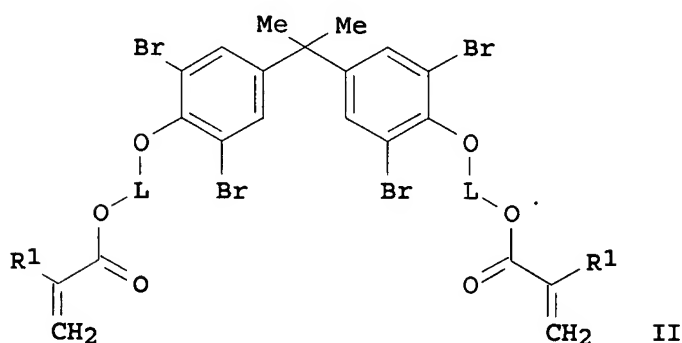
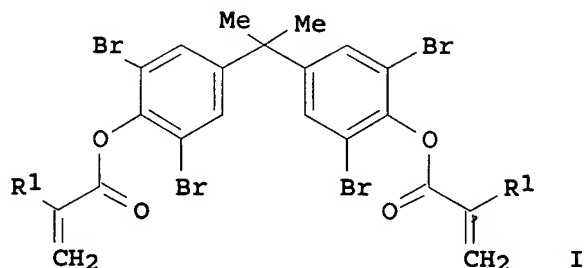
FAMILY ACC. NUM. COUNT: 2

**PATENT INFORMATION:**

application

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005147838	A1	20050707	US 2003-747985	20031230
WO 2005066230	A1	20050721	WO 2004-US41259	20041208
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2006004166	A1	20060105	US 2005-167953	20050628
PRIORITY APPLN. INFO.:			US 2003-747985	A 20031230

GI



AB Brightness enhancing films for displays for improving the gain are manufactured from polymers prepared by polymerization of mixts. containing (a)

(meth)acrylates I (R1 = H or Me) and(or) (meth)acrylates II [R1 = H or Me, L = C1-12 alkylene or CH2CH(OH)CH2], (b) crosslinking agents containing  $\geq 3$  (meth)acrylate groups, and (c)  $\geq 1$  monofunctional (meth)acrylate reactive diluent.

IC ICM B32B027-30  
ICS B32B003-00

INCL 428522000; 526317100; 526319000; 526318430; 526318440; 525330300

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 74

ST bromobisphenol A acrylate copolymer brightness enhancing film;  
methacrylate bromobisphenol A copolymer brightness enhancing film

IT Polymerization  
(photopolymn.; of tetrabromobisphenol A (meth)acrylates for brightness enhancing films)

IT Optical films  
(polymerizable (meth)acrylate compns. for brightness enhancing films)

IT 856414-76-1P 856414-77-2P 856414-78-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polymerizable (meth)acrylate compns. for brightness enhancing films)

IT 856414-76-1P 856414-77-2P 856414-78-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polymerizable (meth)acrylate compns. for brightness enhancing films)

RN 856414-76-1 HCAPLUS

CN 2-Propenoic acid, 2-(hydroxymethyl)-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with (1-methylethylidene)bis[(2,6-dibromo-4,1-

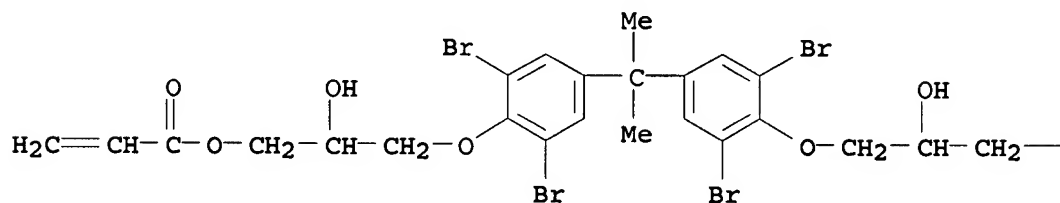
phenylene)oxy(2-hydroxy-3,1-propanediyl)] di-2-propenoate and  
2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

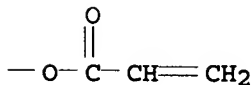
CRN 66696-45-5

CMF C27 H28 Br4 O8

PAGE 1-A



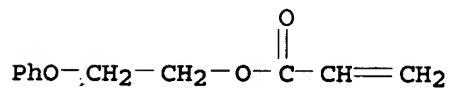
PAGE 1-B



CM 2

CRN 48145-04-6

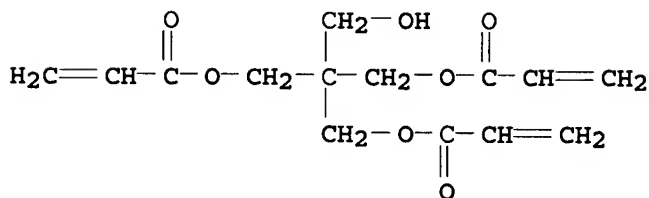
CMF C11 H12 O3



CM 3

CRN 3524-68-3

CMF C14 H18 O7



RN 856414-77-2 HCAPLUS

CN 2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-

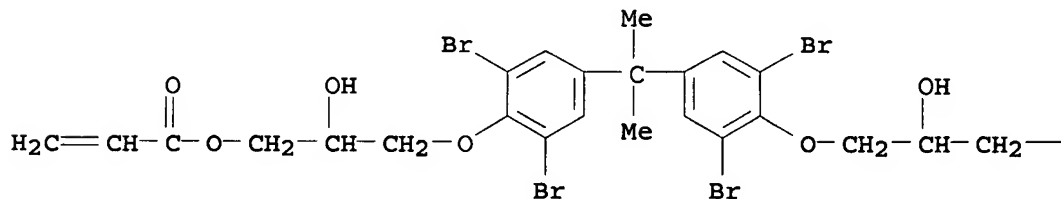
propanediyl ester, polymer with (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy(2-hydroxy-3,1-propanediyl)] di-2-propenoate and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

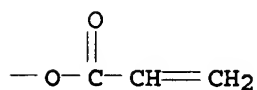
CRN 66696-45-5

CMF C27 H28 Br4 O8

PAGE 1-A



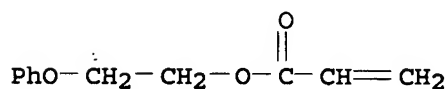
PAGE 1-B



CM 2

CRN 48145-04-6

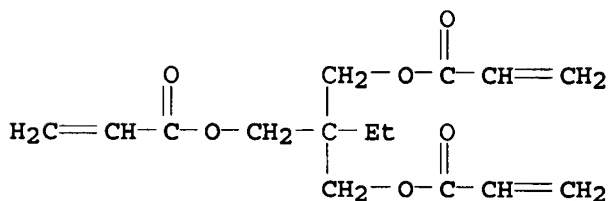
CMF C11 H12 O3



CM 3

CRN 15625-89-5

CMF C15 H20 O6



RN 856414-78-3 HCAPLUS

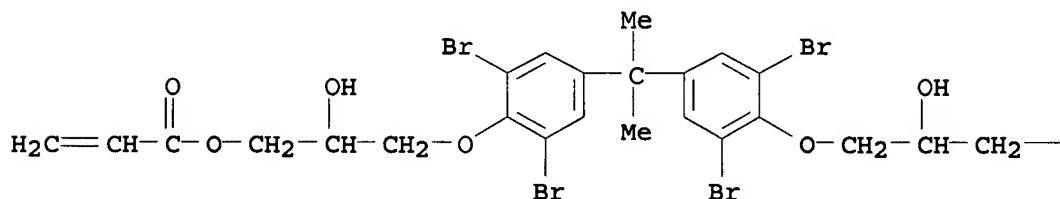
CN 2-Propenoic acid, 2-(hydroxymethyl)-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy(2-hydroxy-3,1-propanediyl)] di-2-propenoate and phenylmethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

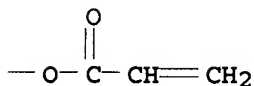
CRN 66696-45-5

CMF C27 H28 Br4 O8

PAGE 1-A



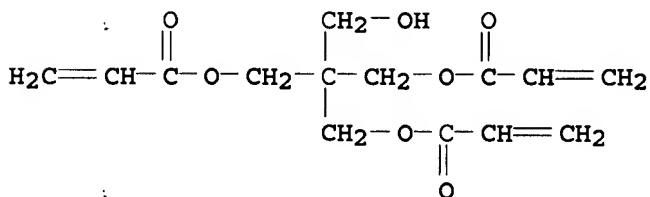
PAGE 1-B



CM 2

CRN 3524-68-3

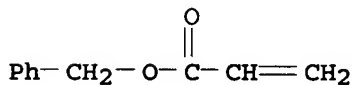
CMF C14 H18 O7



CM 3

CRN 2495-35-4

CMF C10 H10 O2



L31 ANSWER 6 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2005:588418 HCAPLUS  
 DOCUMENT NUMBER: 143:97816  
 TITLE: Polymerizable composition for optical articles  
 INVENTOR(S): Olson, David B.; Berg, Brandon T.; Larson, Randy A.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 10 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005148735	A1	20050707	US 2003-748049	20031230
WO 2005066228	A1	20050721	WO 2004-US41553	20041209

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-748049 A 20031230

AB Polymerizable comps. are particularly useful for brightness enhancing films. An example film of bromobisphenol A acrylate, 2,4,6-tribromophenoxyethyl acrylate, phenoxyethyl acrylate, and PETA was prepared

IC ICM C08F020-20

INCL 525330300; 526318430; 526318440

CC 35-4 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 73, 75

ST photopolymerizable monomer brightness enhancing film liq crystal display; bromobisphenol acrylate copolymer brightness enhancing film; bromophenoxyethyl acrylate copolymer brightness enhancing film; monomer high refractive index brightness enhancing film

IT Optical instruments  
 (diffusers; photopolymerizable composition for brightness enhancing films for articles with)

IT Polarizers  
 Prisms  
 (photopolymerizable composition for brightness enhancing films for articles with)

IT Liquid crystal displays  
 Optical films  
 (photopolymerizable composition for brightness enhancing films for displays)

IT 856451-89-3P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (photopolymerizable composition for brightness enhancing films for displays)

IT 856451-89-3P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (photopolymerizable composition for brightness enhancing films for displays)

RN 856451-89-3 HCAPLUS

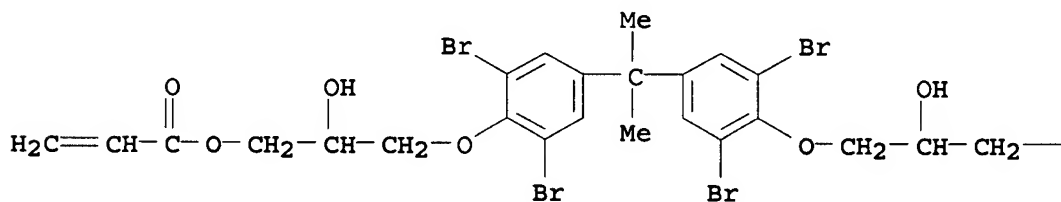
CN 2-Propenoic acid, 2-(hydroxymethyl)-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy(2-hydroxy-3,1-propanediyl)] di-2-propenoate, 2-phenoxyethyl 2-propenoate and 2-(2,4,6-tribromophenoxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

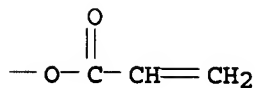
CRN 66696-45-5

CMF C27 H28 Br4 O8

PAGE 1-A



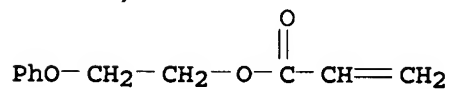
PAGE 1-B



CM 2

CRN 48145-04-6

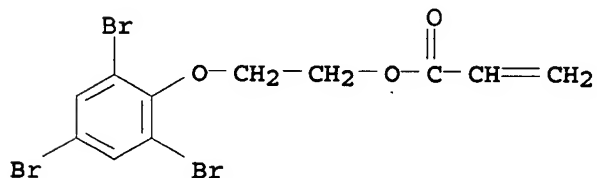
CMF C11 H12 O3



CM 3

CRN 7347-19-5

CMF C11 H9 Br3 O3

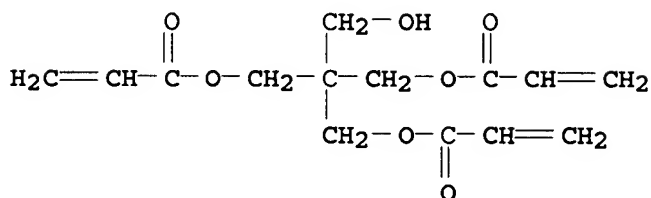




CM 4

CRN 3524-68-3

CMF C14 H18 O7



L31 ANSWER 7 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:260308 HCAPLUS

DOCUMENT NUMBER: 142:344860

TITLE: Durable optical element

INVENTOR(S): Jones, Clinton L.; Kolb, Brant U.; Goenner, Emily S.;  
Brady, John T.; Haak, Christopher A.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

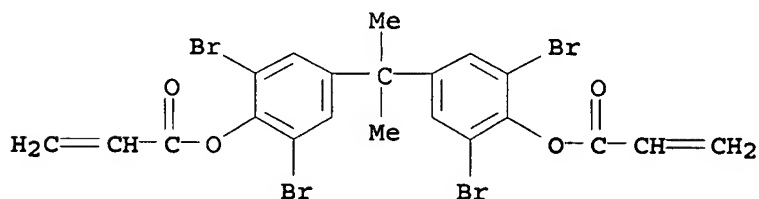
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

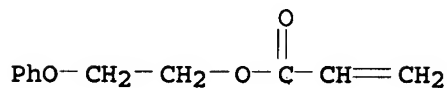
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005026793	A1	20050324	WO 2004-US29603	20040913
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005059766	A1	20050317	US 2003-662085	20030912
US 2005151119	A1	20050714	US 2004-939184	20040910
EP 1664860	A1	20060607	EP 2004-788684	20040913
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
PRIORITY APPLN. INFO.:			US 2003-662085	A 20030912
			US 2004-939184	A 20040910
			WO 2004-US29603	W 20040913
AB The invention refers to a durable optical film including a polymerized optical film structure having a microstructured surface and a scratch contrast ratio value at 1.0 - 1.65 or 1.0 - 1.15. These durable optical films can include a plurality of nanoparticles and a rounded prism apexes microstructure.				
IC ICM G02B005-12				

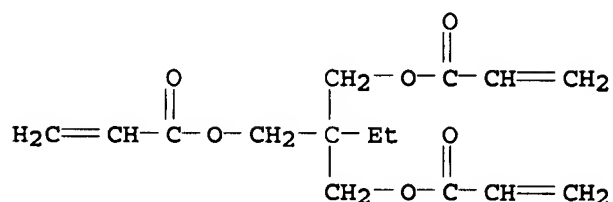
ICS G02B005-04; G02B006-00  
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)  
ST optical film microstructure nanoparticle  
IT Microstructure  
Nanoparticles  
Optical films  
(durable optical films containing microstructure)  
IT 2530-85-0, Silane A174 7631-86-9, Silica, uses 134394-90-4  
180189-72-4, Silquest A 1230 847373-80-2 848504-05-2  
RL: DEV (Device component use); USES (Uses)  
(durable optical films containing microstructure)  
IT 848504-05-2  
RL: DEV (Device component use); USES (Uses)  
(durable optical films containing microstructure)  
RN 848504-05-2 HCAPLUS  
CN 2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with (1-methylethylidene)bis(2,6-dibromo-4,1-phenylene) di-2-propenoate and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)  
  
CM 1  
  
CRN 55205-38-4  
CMF C21 H16 Br4 O4



CM 2  
  
CRN 48145-04-6  
CMF C11 H12 O3



CM 3  
  
CRN 15625-89-5  
CMF C15 H20 O6



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 8 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:771723 HCAPLUS

DOCUMENT NUMBER: 139:299251

TITLE: Heat-developable imaging materials with good image stability, their packaging materials, and image formation using them

INVENTOR(S): Takeyama, Toshihsa

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 61 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003280184	A2	20031002	JP 2002-82917	20020325
PRIORITY APPLN. INFO.:			JP 2002-82917	20020325

AB The imaging material contains a image formation layer containing (A) nonphotosensitive organic Ag salts, (B) reducing agents, (C) ethylenically unsatd. polymerizable compds. or epoxy-containing polymerizable compds., and (D) photopolymn. initiators. The polymerizable compds. are preferably contained in heat-sensitive microcapsules. The image formation layer may further contain photog. Ag halides. The imaging materials are packaged by light-shielding and gas-barrier materials. The images are formed by (A) imagewise heating followed by irradiating or alternatively, (B) imagewise exposing, heating under light-shielded conditions, and irradiating.

IC ICM G03F007-004

ICS B41M005-30; G03C001-498; G03C001-76; G03C003-00; G03C005-08; G03F007-11; G03F007-26; G03F007-38

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

ST heat developable imaging photolithog image fixing; photog thermog epoxy photolithog image stability; thermal printing sheet gas barrier packaging

IT Packaging materials

(films, gas-impermeable, multilayer; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT Thermal printing

(heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT Polyurethanes, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT Photographic films

(heat-developable; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT Photography  
(heat-developing; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT Microcapsules  
(heat-sensitive, photopolymerizable compds. containing; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT Epoxy resins, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(image formation layer containing; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT Carbon black, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(laminate containing, packaging with; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT Polyesters, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(laminate, packaging with, Toyobo Ester Film E 5100, Lumirror T 60; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT Aminoplasts  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(microcapsule; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT Light shields  
(packaging material; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT Paper  
(packaging with; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT Polyesters, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(packaging with; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT Cycloalkenes  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polymers, laminate, Apel, packaging with; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT Thermal printing materials  
(sheets; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT Photolithography  
(stabilizing images by; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT 24293-30-9 246246-21-9 300822-65-5 607708-87-2 607708-88-3  
607708-89-4 607708-90-7 607708-91-8  
RL: CAT (Catalyst use); USES (Uses)  
(acid generator; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT 9005-09-8, Denka Vinyl 1000C 29294-36-8, Vylon 300 39278-79-0, Coronate L  
RL: TEM (Technical or engineered material use); USES (Uses)  
(coating containing, packaging with; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT 25067-34-9, Soarnol 30L 25249-59-6, Saran F 216  
RL: TEM (Technical or engineered material use); USES (Uses)  
(gas-barrier coating, packaging with; heat-developable imaging

materials having photolithog. compds. for stabilizing images)

IT 92899-80-4P 101232-56-8P 142114-14-5P, Dipentaerythritol pentaacrylate-trimethylolpropane triacrylate copolymer 607708-92-9P 607708-93-0P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (image formation layer containing; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT 3253-39-2, Bisphenol A dimethacrylate 15625-89-5, Trimethylolpropane triacrylate 16969-10-1, Phenyl glycidyl ether acrylate 29570-58-9, Dipentaerythritol hexaacrylate 40220-08-4, Aronix M 315 60506-81-2, Dipentaerythritol pentaacrylate 67006-39-7, Newfrontier BR 42M 97666-48-3, Epo Tohto YDCN 701  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (image formation layer containing; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT 13463-67-7, Titania, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (laminate containing, packaging with; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT 9003-07-0, Polypropylene  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (laminate, packaging with, Cenessy C 153-40, Pylon OT-P 2165; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT 25038-59-9, PET polymer, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (laminate, packaging with, Toyobo Ester Film E 5100, Lumirror T 60; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT 7429-90-5, Aluminum, uses 9002-88-4, LDPE 200513-67-3, E 7075  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (laminate, packaging with; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT 9003-08-1P, Formaldehyde-melamine copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (microcapsule; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT 37337-02-3, Takenate D 110N 104782-64-1, Takenate D 204EA  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (microcapsule; heat-developable imaging materials having photolithog. compds. for stabilizing images)

IT 5551-72-4 6293-66-9, Diphenyliodonium p-toluenesulfonate 41580-58-9 82424-53-1 110928-18-2 380848-50-0  
 RL: CAT (Catalyst use); USES (Uses)  
 (photoacid generator; heat-developable imaging materials having photolithog. compds. for stabilizing images)

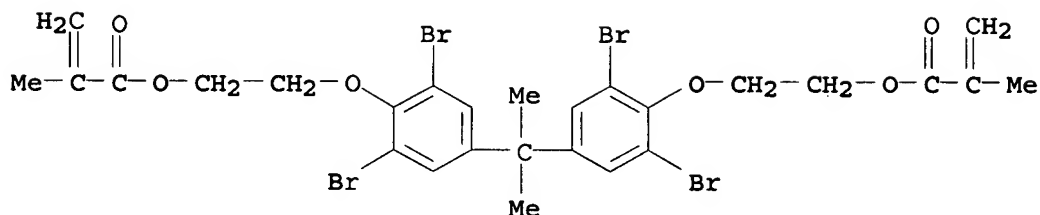
IT 607708-93-0P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (image formation layer containing; heat-developable imaging materials having photolithog. compds. for stabilizing images)

RN 607708-93-0 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy-2,1-ethanediyl] ester, polymer with 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 67006-39-7

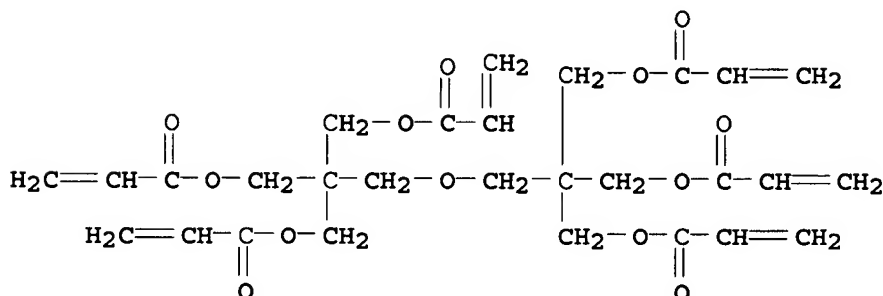
CMF C27 H28 Br4 O6



CM 2

CRN 29570-58-9

CMF C28 H34 O13



L31 ANSWER 9 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:482849 HCAPLUS

DOCUMENT NUMBER: 137:54380

TITLE: Tetrabromobisphenol A dimethacrylate polymer lens and production method

INVENTOR(S): Oshikiri, Tatsuya; Oyaizu, Yasushi; Uno, Kenji

PATENT ASSIGNEE(S): Seed Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002182002	A2	20020626	JP 2000-376218	20001211
PRIORITY APPLN. INFO.:			JP 2000-376218	20001211

AB The invention refers to a polymer lens comprising 20 -80 % EOModified tetrabromobisphenol A dimethacrylate, 5 - 40% secondary or higher thiol, 20 - 70% compound with secondary or higher acrylate, methacrylate, or vinyl group, and 0 - 40% copolyimg. monomer, wherein the refractive index > 1.58

and Abbe Number > 35.

IC ICM G02B001-04  
ICS B29C039-02; C08G075-04; G02C007-02; B29K033-04; B29L011-00

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

ST lens polymer tetrabromo bisphenol A dimethacrylate

IT Lenses  
(polymer; polymer lens and production method)

IT 438632-19-0 438632-20-3 438632-21-4 438632-22-5  
438632-24-7  
RL: DEV (Device component use); USES (Uses)  
(polymer lens and production method)

IT 438632-20-3 438632-21-4 438632-24-7  
RL: DEV (Device component use); USES (Uses)  
(polymer lens and production method)

RN 438632-20-3 HCAPLUS

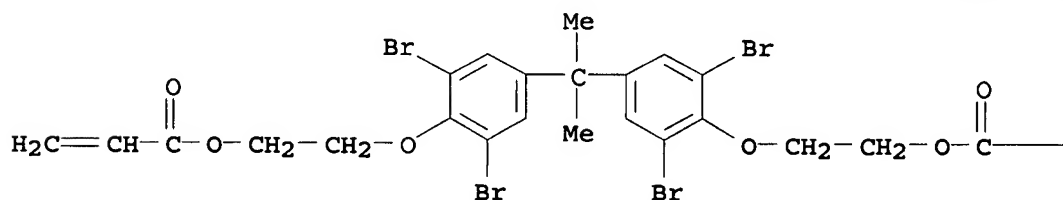
CN 2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 1,2-ethanediyl bis(mercaptoacetate) and (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy-2,1-ethanediyl] di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 66710-97-2

CMF C25 H24 Br4 O6

PAGE 1-A



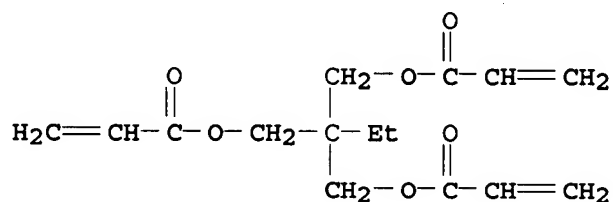
PAGE 1-B

— CH=CH<sub>2</sub>

CM 2

CRN 15625-89-5

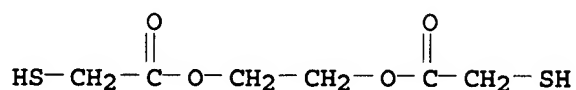
CMF C15 H20 O6



CM 3

CRN 123-81-9

CMF C6 H10 O4 S2



RN 438632-21-4 HCAPLUS

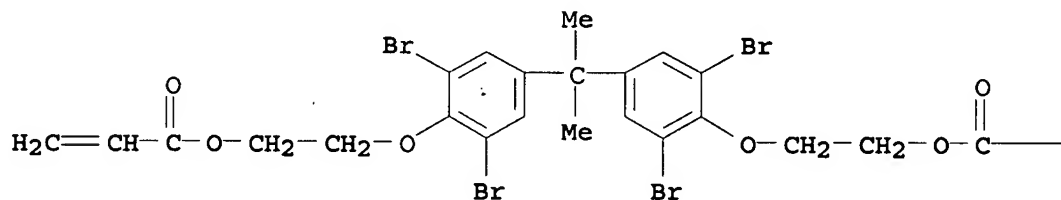
CN 2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2,2-bis[(3-mercapto-1-oxopropoxy)methyl]-1,3-propanediyl bis(3-mercaptopropanoate), ethenylbenzene and (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy-2,1-ethanediyl] di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

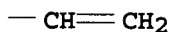
CRN 66710-97-2

CMF C25 H24 Br4 O6

PAGE 1-A



PAGE 1-B

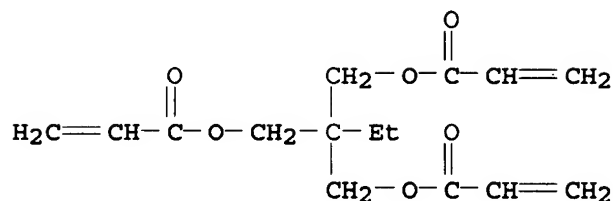


CM 2

CRN 15625-89-5



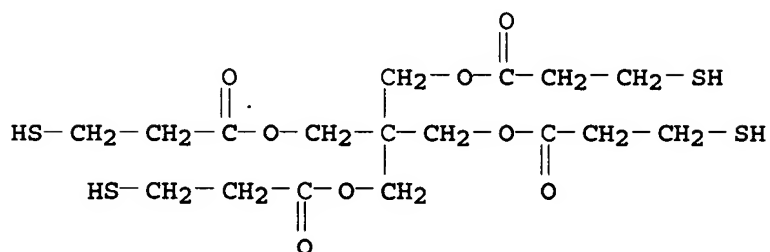
CMF C15 H20 O6



CM 3

CRN 7575-23-7

CMF C17 H28 O8 S4



CM 4

CRN 100-42-5

CMF C8 H8



RN 438632-24-7 HCAPLUS

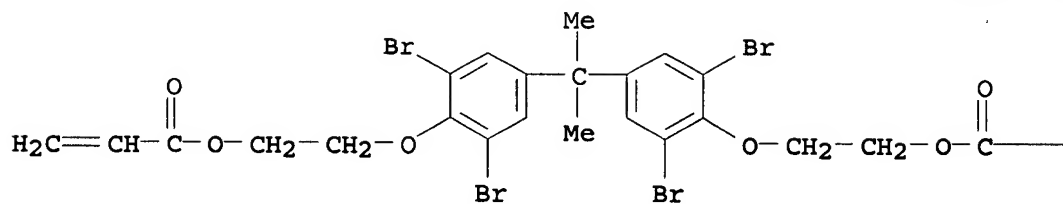
CN 2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 1,2-ethanediyl bis(mercaptoacetate), (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy-2,1-ethanediyl] di-2-propenoate and  $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-phenylene]bis[ $\omega$ -[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

CM 1

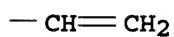
CRN 66710-97-2

CMF C25 H24 Br4 O6

PAGE 1-A



PAGE 1-B



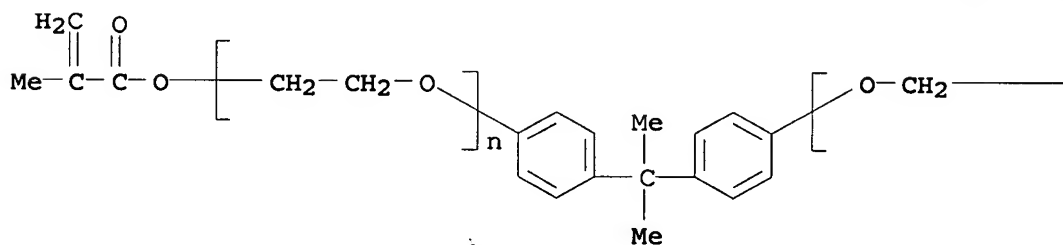
CM 2

CRN 41637-38-1

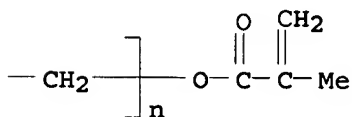
CMF (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> C23 H24 O4

CCI PMS

PAGE 1-A



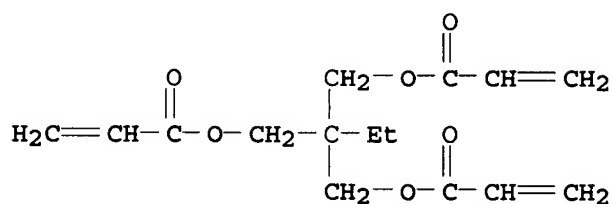
PAGE 1-B



CM 3

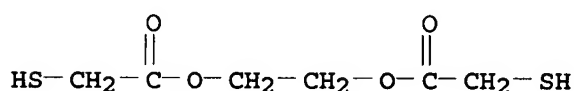
CRN 15625-89-5

CMF C15 H20 O6



CM 4

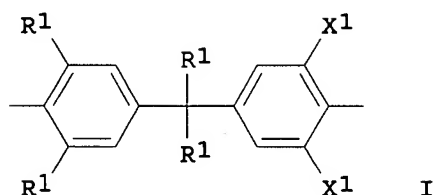
CRN 123-81-9  
CMF C6 H10 O4 S2



L31 ANSWER 10 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2001:289985 HCAPLUS  
DOCUMENT NUMBER: 134:312533  
TITLE: Scratch- and soiling-resistant photocurable resin  
compositions and plastic sheets having their coatings  
INVENTOR(S): Tanabe, Takaki; Takahashi, Atsuya; Takehata, Yuichi;  
Ukaji, Takashi  
PATENT ASSIGNEE(S): JSR Co., Ltd., Japan; Nippon Tokushu Coating K. K.  
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001114831	A2	<u>20010424</u>	JP 1999-301056	19991022
WO 2001029138	A1	20010426	WO 2000-NL744	20001016
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1238018	A1	20020911	EP 2000-974997	20001016
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL			
US 2003004222	A1	20030102	US 2002-126948	20020422
PRIORITY APPLN. INFO.:			JP 1999-301056	A 19991022
			WO 2000-NL744	W 20001016

GI



- AB The compns. with refractive index of the cured products 1.56-1.65, useful for plastic lenses, etc., comprise di(meth)acrylates containing divalent groups I ( $R^1 = H, Me$ ;  $X^1 = H, Cl, Br$ ) and/or 2,4,6-tribromophenyl-containing (meth)acrylates. Thus, a composition comprising 2,2',6,6'-tetrabromobisphenol A glycidyl ether (2:2) diacrylate, ethoxylated bisphenol A diacrylate (Viscoat 700), 2,4,6-tribromophenoxyethyl acrylate (BR 31), tris(acryloyloxyethyl) isocyanurate, phenoxyethyl acrylate, a photoinitiator and solvents was applied on a substrate and UV-cured to give a coating showing refractive index 1.572, pencil hardness 3H, and no interference fringes for a coating on a PET film.
- IC ICM C08F020-22  
ICS B05D007-04; B05D007-24; C08F002-46; C08F020-30; C08F290-06;  
C08J007-04; C09D004-02; C09D005-00; G02B001-04; C08L025-04;  
C08L067-00; C08L069-00
- CC 42-7 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 38, 73
- ST bromobisphenol glycidyl ether acrylate photocurable coating;  
bromophenoxyethyl acrylate coating PET film lens
- IT Polyethers, uses  
Polyoxyalkylenes, uses  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic; scratch- and soiling-resistant photocurable resin compns. for plastic sheet coatings with no interference fringes)
- IT Coating materials  
(antisoiling; scratch- and soiling-resistant photocurable resin compns. for plastic sheet coatings with no interference fringes)
- IT Polyurethanes, uses  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyoxyalkylene-, acrylic; scratch- and soiling-resistant photocurable resin compns. for plastic sheet coatings with no interference fringes)
- IT Plastic films  
(scratch- and soiling-resistant photocurable resin compns. for plastic sheet coatings with no interference fringes)
- IT Coating materials  
(scratch-resistant; scratch- and soiling-resistant photocurable resin compns. for plastic sheet coatings with no interference fringes)
- IT Polycarbonates, uses  
Polyesters, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(substrate; scratch- and soiling-resistant photocurable resin compns. for plastic sheet coatings with no interference fringes)
- IT 334015-47-3P 334015-51-9P 334015-54-2P 334015-57-5P  
335081-68-0P  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(scratch- and soiling-resistant photocurable resin compns. for plastic sheet coatings with no interference fringes)
- IT 9003-53-6, Polystyrene 25034-86-0, Methyl methacrylate-styrene copolymer

25038-59-9, PET polymer, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (substrate; scratch- and soiling-resistant photocurable resin compns.  
 for plastic sheet coatings with no interference fringes)

IT 335081-68-0P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
 engineered material use); PREP (Preparation); USES (Uses)  
 (scratch- and soiling-resistant photocurable resin compns. for plastic  
 sheet coatings with no interference fringes)

RN 335081-68-0 HCAPLUS

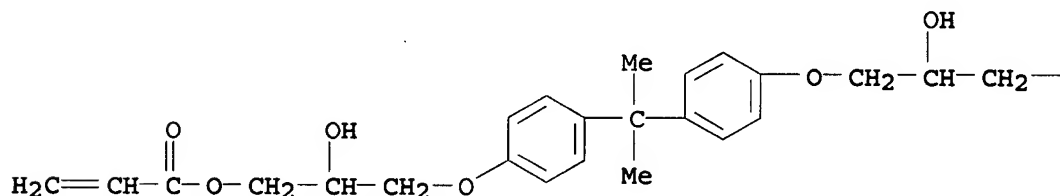
CN 2-Propenoic acid, 2-methyl-, (1-methylethylidene)bis[(2,6-dibromo-4,1-  
 phenylene)oxy-2,1-ethanediyl] ester, polymer with 1,3-  
 diisocyanatomethylbenzene, 2-hydroxyethyl 2-propenoate,  
 (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)oxy-4,1-  
 phenylene(1-methylethylidene)-4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]  
 di-2-propenoate,  $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-  
 phenylene]bis[ $\omega$ -hydroxypoly(oxy-1,2-ethanediyl)],  
 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[[(1-oxo-2-  
 propenyl)oxy]methyl]propoxy]methyl]-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-  
 propanediyl di-2-propenoate, 2-phenoxyethyl 2-propenoate and  
 2-(2,4,6-tribromophenoxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

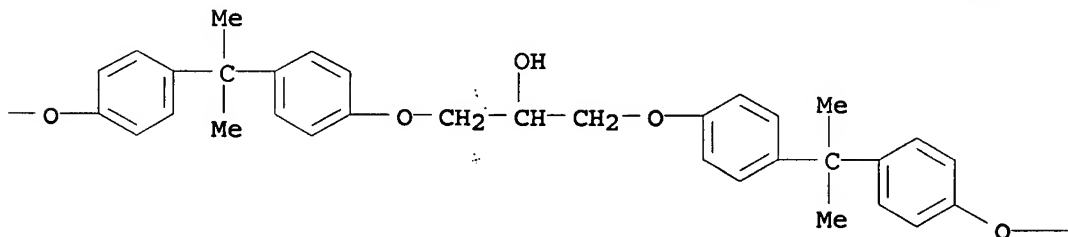
CRN 106207-23-2

CMF C63 H72 O14

PAGE 1-A

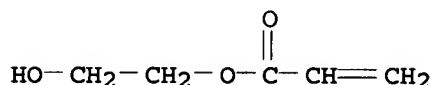


PAGE 1-B









L31 ANSWER 11 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:464818 HCAPLUS

DOCUMENT NUMBER: 133:96824

TITLE: Ablation-type image-forming material and image formation using same

INVENTOR(S): Sakata, Hideaki

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000190633	A2	20000711	JP 1998-377063	19981228
PRIORITY APPLN. INFO.:			JP 1998-377063	19981228

AB The title image-forming material comprises a transparent support coated with an image-forming layer and a protective layer formed by coating and drying a solution containing an activating energy ray-curable compound on the image-forming layer, the dry film thickness ratio of the image-forming layer and protective layer is 1:3-10:1, and the total dry film thickness is  $\leq 5 \mu\text{m}$ . In the material comprising a support coated successively with an image-forming layer and  $\geq 2$  protective layers,  $\geq 1$  of the protective layers may contains an activating energy ray-curable compound and the uppermost protective layer may contain a resin having at least urethane bonds in its mol. The material, possessing a peelable sheet coated on the protective layer, is imagewise exposed with a laser beam from the support side to cause ablation in the exposed areas of the image-forming layer followed by peeling the peelable sheet off to transfer the exposed areas of the image-forming layer to the sheet to form an image. In the above process, the residual image-forming layer after peeling the peelable sheet off may be cured by irradiation with an activating energy ray to form an image. The material shows high photosensitivity and provides high resolution images with improved scratch resistance.

IC ICM B41M005-26

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

ST laser ablation printing curable protective layer

IT Soybean oil

RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (epoxylated, polymers, protective layer; laser ablation transfer-printing material having image-forming layer, protective layer, and optional peelable layer)

IT Laser ablation

Transfer printing

(laser ablation transfer-printing material having image-forming layer, protective layer, and optional peelable layer)

IT Polyurethanes, preparation

Polyurethanes, preparation



Polyurethanes, preparation  
 RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (phenolic-polyester-, protective layer; laser ablation transfer-printing material having image-forming layer, protective layer, and optional peelable layer)

IT Polyesters, preparation  
 Polyesters, preparation  
 Polyesters, preparation  
 RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (phenolic-polyurethane-, protective layer; laser ablation transfer-printing material having image-forming layer, protective layer, and optional peelable layer)

IT Phenolic resins, preparation  
 Phenolic resins, preparation  
 Phenolic resins, preparation  
 RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyester-polyurethane-, protective layer; laser ablation transfer-printing material having image-forming layer, protective layer, and optional peelable layer)

IT Epoxy resins, preparation  
 RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (protective layer; laser ablation transfer-printing material having image-forming layer, protective layer, and optional peelable layer)

IT 281669-02-1P, Elitel UE 3690-Coronate HX-PKHH copolymer  
 RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (laser ablation transfer-printing material having image-forming layer, protective layer, and optional peelable layer)

IT 80-05-7DP, Bisphenol A, hydrogenated, glycidyl ether, polymers 74911-53-8DP, polymers 146024-88-6P, Bis(3,4-epoxy-6-methylcyclohexylmethyl) adipate-bisphenol A glycidyl ether-1,4-butanediol glycidyl ether copolymer 280776-33-2P, Acrylonitrile-ethyl methacrylate-methacrylic acid-methyl methacrylate copolymer ester with glycidyl methacrylate 281669-01-0P, Aronix M 305-Newfrontier BR 42M copolymer  
 RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (protective layer; laser ablation transfer-printing material having image-forming layer, protective layer, and optional peelable layer)

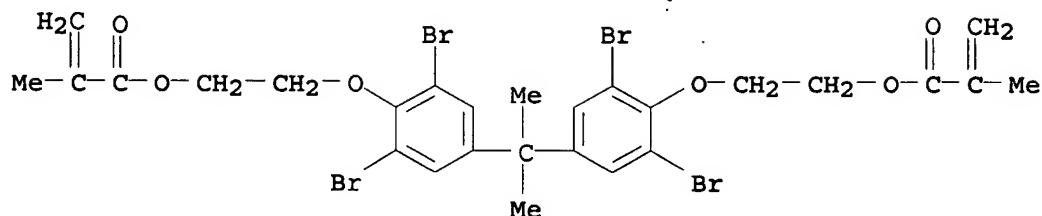
IT 281669-01-0P, Aronix M 305-Newfrontier BR 42M copolymer  
 RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (protective layer; laser ablation transfer-printing material having image-forming layer, protective layer, and optional peelable layer)

RN 281669-01-0 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy-2,1-ethanediyl] ester, polymer with 2-(hydroxymethyl)-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 67006-39-7

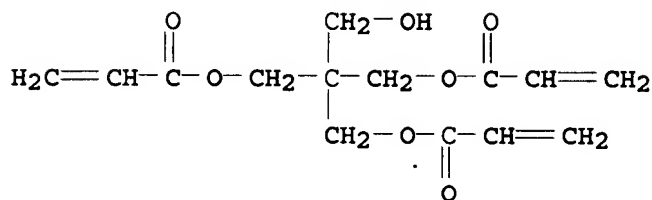
CMF C27 H28 Br4 O6



CM 2

CRN 3524-68-3

CMF C14 H18 O7



L31 ANSWER 12 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:745108 HCAPLUS

DOCUMENT NUMBER: 130:25757

TITLE: Compositions containing ring-brominated alkylphenyl (meth)acrylates and cured products having high refractive indexes

INVENTOR(S): Olson, David B.; Fong, Bettie C.

PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA

SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9850442	A1	19981112	WO 1997-US15862	19970909
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6355754	B1	20020312	US 1997-853995	19970509
CA 2288065	AA	19981112	CA 1997-2288065	19970909
AU 9741847	A1	19981127	AU 1997-41847	19970909
AU 727717	B2	20001221		
EP 980398	A1	20000223	EP 1997-939847	19970909
EP 980398	B1	20021127		
R: DE, ES, FR, GB, IT, NL				

JP 2001524151 T2 20011127 JP 1998-548016 19970909  
ES 2185044 T3 20030416 ES 1997-939847 19970909  
PRIORITY APPLN. INFO.: US 1997-853995 A 19970509  
WO 1997-US15862 W 19970909

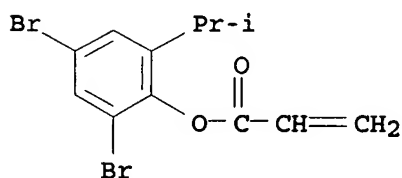
- AB Polymerizable compns. containing an ring-brominated alkylphenyl (meth)acrylates having  $n \geq 1.50$  and a comonomer having a high  $n$  are cured to give products with  $n \geq 1.590$ . A typical composition contained 4,6-dibromo-2-isopropylphenyl acrylate 15, 4,6-dibromo-2-sec-butylphenyl acrylate 11, ar-methylstyrene 10, RDX 5107 (brominated epoxy diacrylate) 52, EB220 3, 2-phenoxyethyl acrylate 9, surfactant 0.3, and initiator 3 parts.
- IC ICM C08F220-22  
ICS G02B001-04
- CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 73
- ST brominated alkylphenyl methacrylate polymer transparent; acrylate brominated alkylphenyl polymer transparent
- IT Polyurethanes, preparation  
Polyurethanes, preparation  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(acrylic-epoxy; compns. containing ring-brominated alkylphenyl (meth)acrylates and cured products having high refractive indexes)
- IT Epoxy resins, preparation  
Epoxy resins, preparation  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(acrylic-polyurethane-; compns. containing ring-brominated alkylphenyl (meth)acrylates and cured products having high refractive indexes)
- IT Transparent materials  
(compns. containing ring-brominated alkylphenyl (meth)acrylates and cured products having high refractive indexes)
- IT 216076-97-0P 216076-99-2P 216077-00-8P  
216077-01-9P 216077-02-0P 216077-03-1P  
216221-35-1P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(compns. containing ring-brominated alkylphenyl (meth)acrylates and cured products having high refractive indexes)
- IT 90562-17-7P 90869-34-4P 103526-64-3P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(monomer precursor; compns. containing ring-brominated alkylphenyl (meth)acrylates and cured products having high refractive indexes)
- IT 88-69-7, 2-Isopropylphenol 89-72-5, 2-sec-Butylphenol 104-40-5  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(monomer precursor; compns. containing ring-brominated alkylphenyl (meth)acrylates and cured products having high refractive indexes)
- IT 215805-85-9P 215866-96-9P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(monomer; compns. containing ring-brominated alkylphenyl (meth)acrylates and cured products having high refractive indexes)
- IT 216076-97-0P 216076-99-2P 216077-00-8P  
216077-01-9P 216077-02-0P 216077-03-1P  
216221-35-1P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(compns. containing ring-brominated alkylphenyl (meth)acrylates and cured products having high refractive indexes)
- RN 216076-97-0 HCAPLUS
- CN 2-Propenoic acid, (1-methylethylidene)bis(2,6-dibromo-4,1-phenylene) ester, polymer with 2,4-dibromo-6-(1-methylethyl)phenyl 2-propenoate, 2,4-dibromo-6-(1-methylpropyl)phenyl 2-propenoate, ethenylmethylbenzene,

(4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-bis[[ (1-oxo-2-propenyl)oxy]methyl]-3,1-propanediyl]] di-2-propenoate and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 215805-88-2

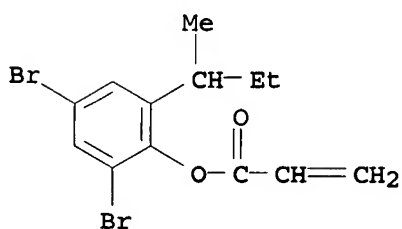
CMF C12 H12 Br2 O2



CM 2

CRN 215805-85-9

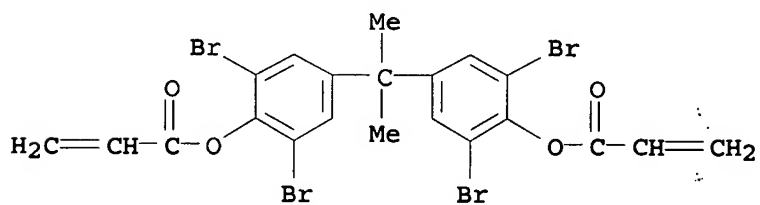
CMF C13 H14 Br2 O2



CM 3

CRN 55205-38-4

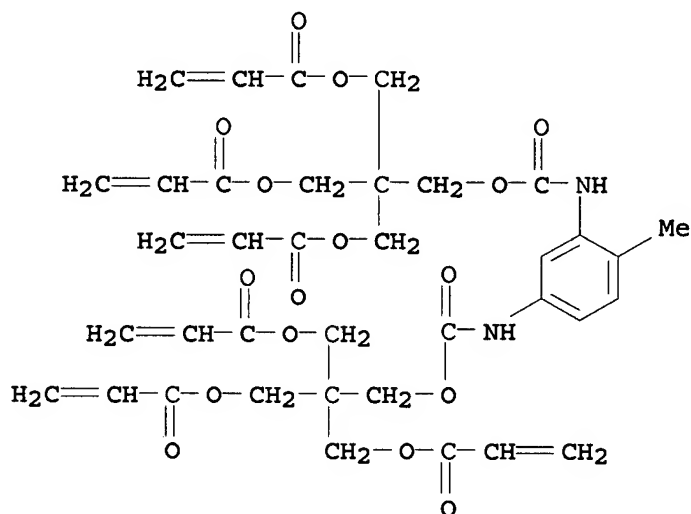
CMF C21 H16 Br4 O4



CM 4

CRN 50843-44-2

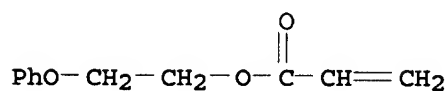
CMF C37 H42 N2 O16



CM 5

CRN 48145-04-6

CMF C11 H12 O3



CM 6

CRN 25013-15-4

CMF C9 H10

CCI IDS



D1-Me

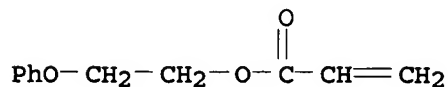
D1-CH=CH2

RN 216076-99-2 HCAPLUS

CN 2-Propenoic acid, (1-methylethylidene)bis(2,6-dibromo-4,1-phenylene) ester, polymer with 2,4-dibromo-6-(1-methylethyl)phenyl 2-propenoate, ethenylmethylbenzene, (4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]-3,1-propanediyl]] di-2-propenoate and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)



CRN 48145-04-6  
CMF C11 H12 O3



CM 5

CRN 25013-15-4  
CMF C9 H10  
CCI IDS



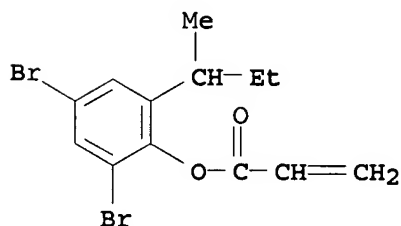
D1- Me

D1- CH=CH<sub>2</sub>

RN 216077-00-8 HCAPLUS  
CN 2-Propenoic acid, (1-methylethylidene)bis(2,6-dibromo-4,1-phenylene) ester, polymer with 2,4-dibromo-6-(1-methylpropyl)phenyl 2-propenoate, ethenylmethylbenzene, (4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-bis[(1-oxo-2-propenyl)oxy]methyl]-3,1-propanediyl]] di-2-propenoate and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

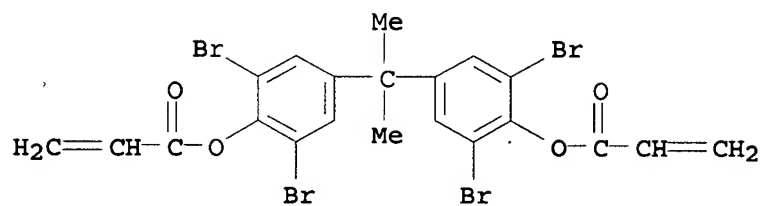
CM 1

CRN 215805-85-9  
CMF C13 H14 Br2 O2



CM 2

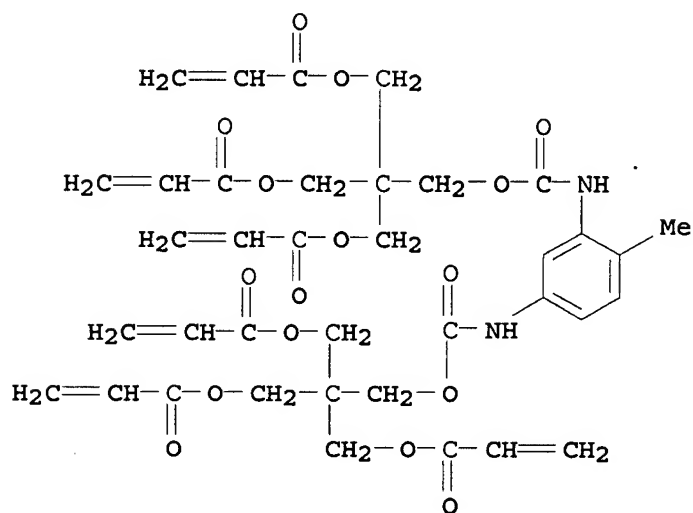
CRN 55205-38-4  
CMF C21 H16 Br4 O4



CM 3

CRN 50843-44-2

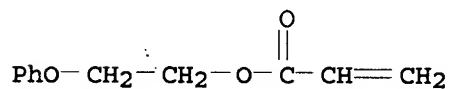
CMF C37 H42 N2 O16



CM 4

CRN 48145-04-6

CMF C11 H12 O3



CM 5

CRN 25013-15-4

CMF C9 H10

CCI IDS





D1- Me

D1- CH=CH<sub>2</sub>

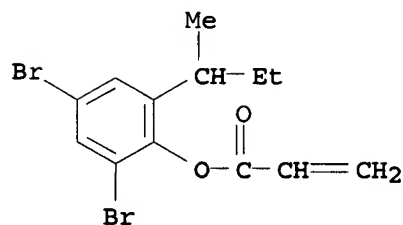
RN 216077-01-9 HCAPLUS

CN 2-Propenoic acid, (1-methylethylidene)bis(2,6-dibromo-4,1-phenylene)  
ester, polymer with 2,4-dibromo-6-(1-methylpropyl)phenyl 2-propenoate,  
ethenylmethylbenzene and (4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-  
bis[[[(1-oxo-2-propenyl)oxy]methyl]-3,1-propanediyl]] di-2-propenoate (9CI)  
(CA INDEX NAME)

CM 1

CRN 215805-85-9

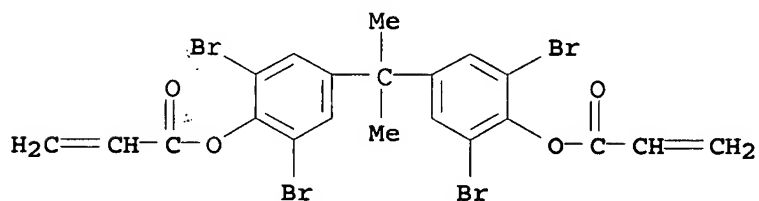
CMF C13 H14 Br2 O2



CM 2

CRN 55205-38-4

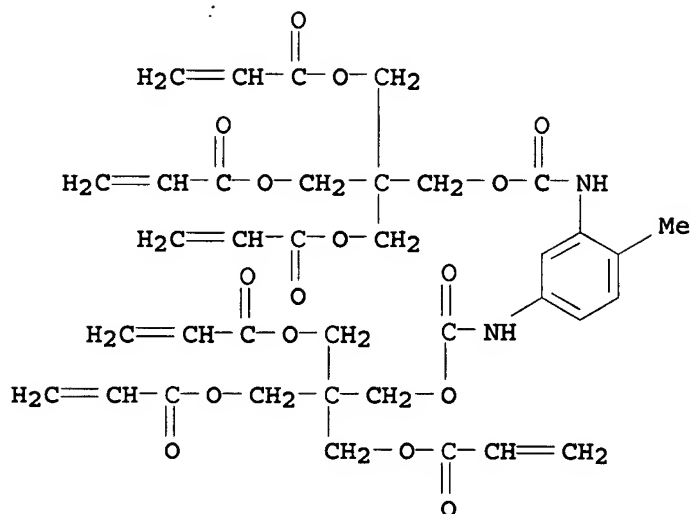
CMF C21 H16 Br4 O4



CM 3

CRN 50843-44-2

CMF C37 H42 N2 O16



CM 4

CRN 25013-15-4

CMF C9 H10

CCI IDS



D1-Me

D1-CH=CH2

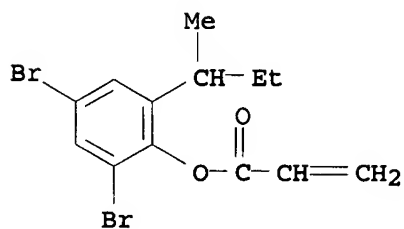
RN 216077-02-0 HCAPLUS

CN 2-Propenoic acid, (1-methylethylidene)bis(2,6-dibromo-4,1-phenylene) ester, polymer with 2,4-dibromo-6-(1-methylpropyl)phenyl 2-propenoate, (4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]-3,1-propanediyl]] di-2-propenoate and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 215805-85-9

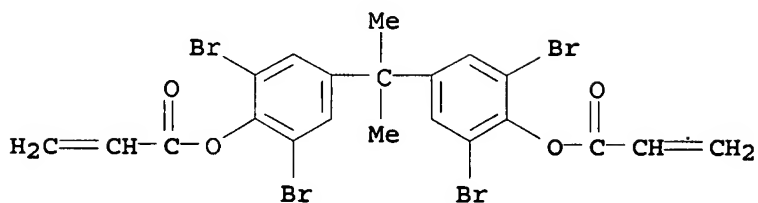
CMF C13 H14 Br2 O2



CM 2

CRN 55205-38-4

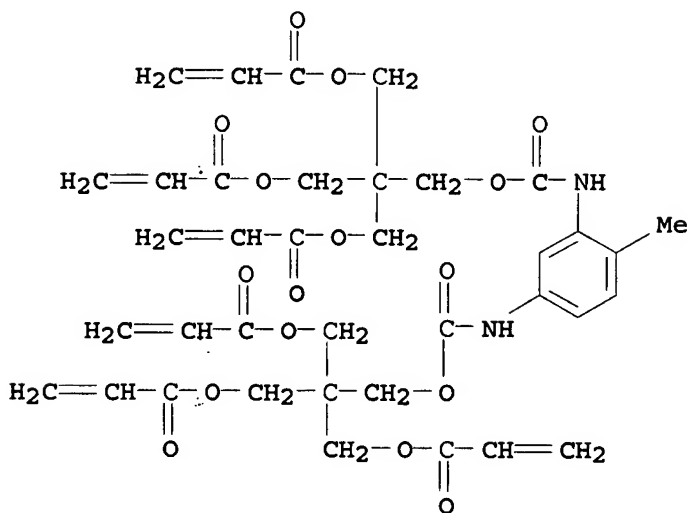
CMF C21 H16 Br4 O4



CM 3

CRN 50843-44-2

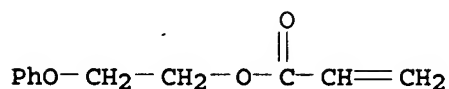
CMF C37 H42 N2 O16



CM 4

CRN 48145-04-6

CMF C11 H12 O3



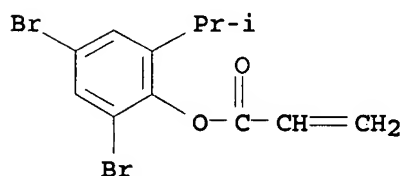
RN 216077-03-1 HCAPLUS

CN 2-Propenoic acid, (1-methylethylidene)bis(2,6-dibromo-4,1-phenylene) ester, polymer with 2,4-dibromo-6-(1-methylethyl)phenyl 2-propenoate, (4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-bis[[1-oxo-2-propenyl)oxy]methyl]-3,1-propanediyl]] di-2-propenoate and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 215805-88-2

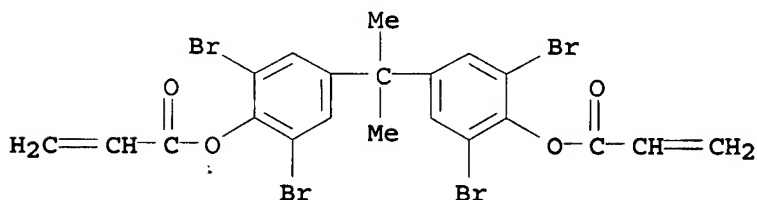
CMF C12 H12 Br2 O2



CM 2

CRN 55205-38-4

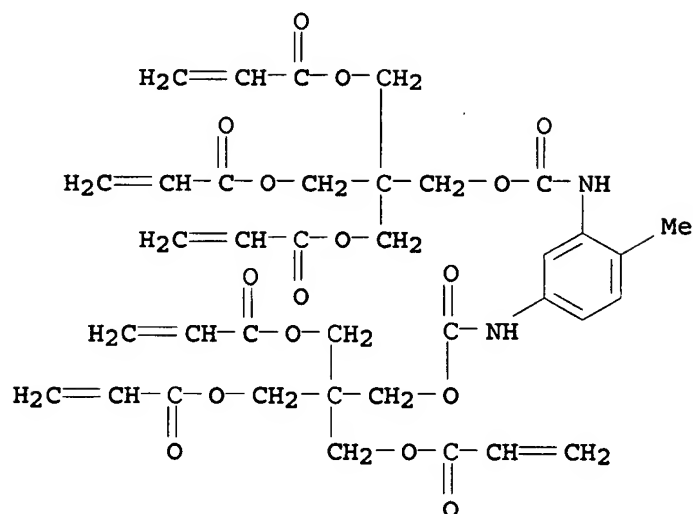
CMF C21 H16 Br4 O4



CM 3

CRN 50843-44-2

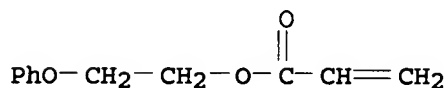
CMF C37 H42 N2 O16



CM 4

CRN 48145-04-6

CMF C11 H12 O3



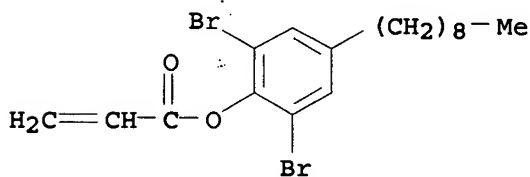
RN 216221-35-1 HCAPLUS

CN 2-Propenoic acid, (1-methylethylidene)bis(2,6-dibromo-4,1-phenylene) ester, polymer with 2,6-dibromo-4-nonylphenyl 2-propenoate, ethenylmethylbenzene, (4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]-3,1-propanediyl]] di-2-propenoate and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 215866-96-9

CMF C18 H24 Br2 O2



CM 2

CRN 55205-38-4

CMF C21 H16 Br4 O4





D1- Me

D1- CH=CH<sub>2</sub>

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 13 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:745107 HCAPLUS

DOCUMENT NUMBER: 130:14580

TITLE: Polymerizable compositions containing ar-methylstyrene as a high index of refraction monomer

INVENTOR(S): Fong, Bettie C.; Olson, David B.

PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9850441	A1	19981112	WO 1997-US16012	19970910
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6107364	A	20000822	US 1997-853982	19970509
CA 2287905	AA	19981112	CA 1997-2287905	19970910
AU 9742650	A1	19981127	AU 1997-42650	19970910
AU 730651	B2	20010308		
EP 980397	A1	20000223	EP 1997-940995	19970910
EP 980397	B1	20011128		
R: DE, ES, FR, GB, IT, NL				
JP 2001526715	T2	20011218	JP 1998-548019	19970910
ES 2163798	T3	20020201	ES 1997-940995	19970910
PRIORITY APPLN. INFO.: US 1997-853982 A 19970509				
WO 1997-US16012 W 19970910				
AB Polymerizable compns. containing ar-methylstyrene (I) and ≥1 comonomer combination containing ≥1 high-refractive-index comonomer are useful for the manufacture of optical device. A typical composition contained I 25, RDX				
5107 (brominated epoxy diacrylate) 50, EB 220 (hexafunctional aromatic urethane acrylate oligomer) 10, BR31 [2-(2,4,6-tribromophenyl)ethyl acrylate] 31, surfactant 0.3, and initiator 2 parts.				

IC ICM C08F212-12  
ICS G02B001-04

CC 37-3 (Plastics Manufacture and Processing)  
Section cross-reference(s): 74

ST methylstyrene copolymer high refractive index; bromophenylethyl acrylate  
methylstyrene copolymer manuf; urethane acrylate methylstyrene copolymer  
manuf; brominated epoxy diacrylate methylstyrene copolymer manuf; optical  
device methylstyrene copolymer

IT Computers  
(polymerizable compns. containing ar-methylstyrene as a high index of  
refraction monomer for brightness enhancement films for computers)

IT Television  
(polymerizable compns. containing ar-methylstyrene as a high index of  
refraction monomer for brightness enhancement films for televisions)

IT Optical imaging devices  
(polymerizable compns. containing ar-methylstyrene as a high index of  
refraction monomer for optical devices)

IT 216071-27-1P 216071-29-3P  
RL: DEV (Device component use); IMF (Industrial manufacture); PRP  
(Properties); PREP (Preparation); USES (Uses)  
(polymerizable compns. containing ar-methylstyrene as a high index of  
refraction monomer for optical devices)

IT 216071-27-1P 216071-29-3P  
RL: DEV (Device component use); IMF (Industrial manufacture); PRP  
(Properties); PREP (Preparation); USES (Uses)  
(polymerizable compns. containing ar-methylstyrene as a high index of  
refraction monomer for optical devices)

RN 216071-27-1 HCAPLUS

CN 2-Propenoic acid, (1-methylethylidene)bis(2,6-dibromo-4,1-phenylene)  
ester, polymer with ethenylmethylbenzene, (4-methyl-1,3-  
phenylene)bis[iminocarbonyloxy[2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]-3,1-  
propanediyl]] di-2-propenoate and  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -  
(tribromophenoxy)poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

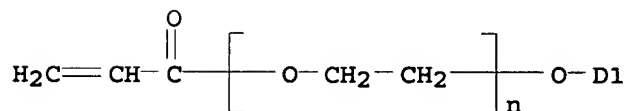
CRN 137077-05-5

CMF (C2 H4 O)<sub>n</sub> C9 H5 Br3 O2

CCI IDS, PMS



3 ( D1- Br )

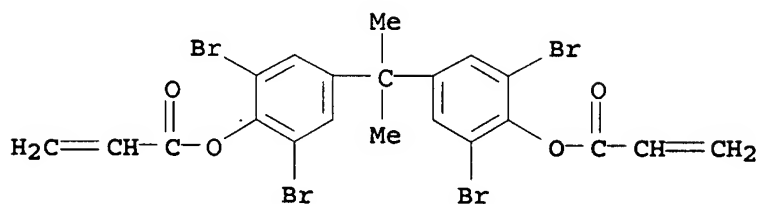


CM 2



CRN 55205-38-4

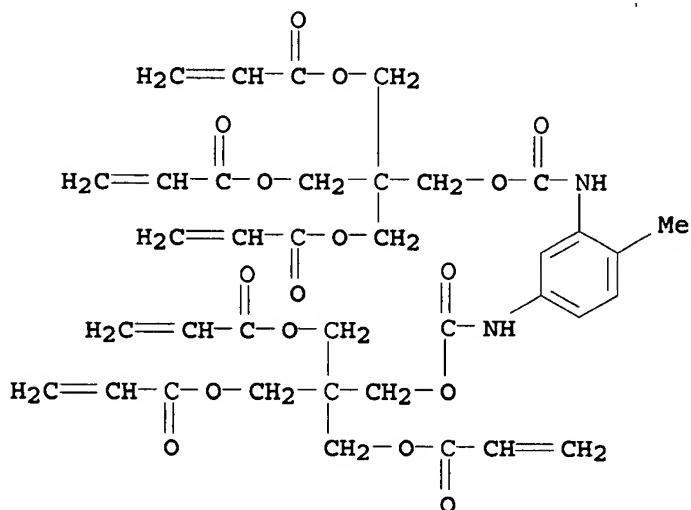
CMF C21 H16 Br4 O4



CM 3

CRN 50843-44-2

CMF C37 H42 N2 O16



CM 4

CRN 25013-15-4

CMF C9 H10

CCI IDS.



D1- Me

D1- CH=CH<sub>2</sub>

RN 216071-29-3 HCAPLUS

CN 2-Propenoic acid, (1-methylethylidene)bis(2,6-dibromo-4,1-phenylene) ester, polymer with ethenylmethylbenzene, (4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]-3,1-propanediyl]] di-2-propenoate, α-(1-oxo-2-propenyl)-ω-(tribromophenoxy)poly(oxy-1,2-ethanediyl) and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

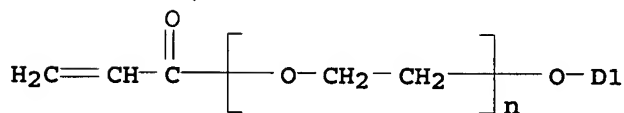
CRN 137077-05-5

CMF (C2 H4 O)<sub>n</sub> C9 H5 Br3 O2

CCI IDS, PMS



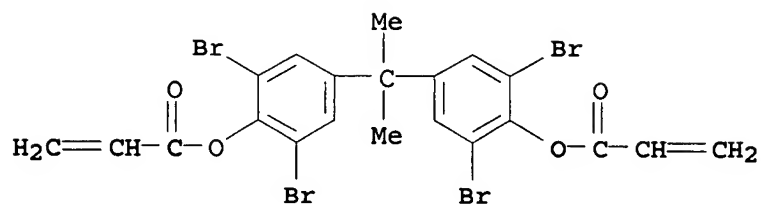
3 ( D1- Br )



CM 2

CRN 55205-38-4

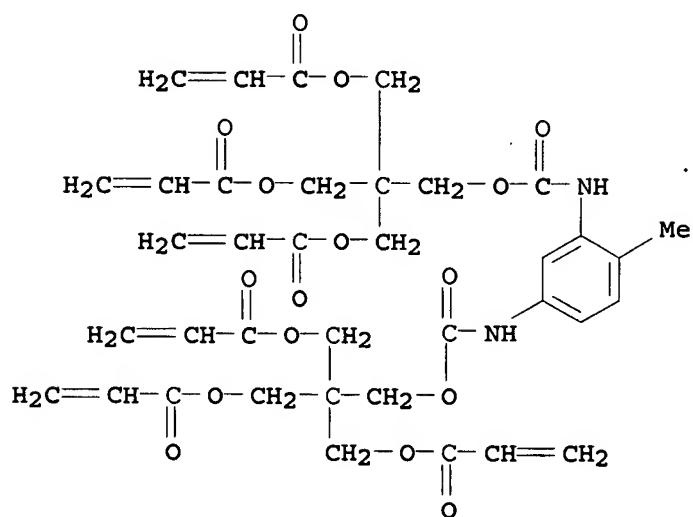
CMF C21 H16 Br4 O4



CM 3

CRN 50843-44-2

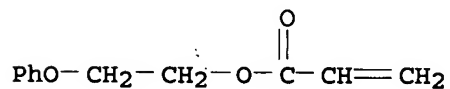
CMF C37 H42 N2 O16



CM 4

CRN 48145-04-6

CMF C11 H12 O3



CM 5

CRN 25013-15-4

CMF C9 H10

CCI	IDS
-----	-----



D1- Me

D1- CH=CH<sub>2</sub>

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 14 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:31338 HCAPLUS

DOCUMENT NUMBER: 128:102912

TITLE: Polymerizable acrylic compositions containing fluorochemical surfactants as monomers to reduce melting temperature

INVENTOR(S): Fong, Bettie C.; Brostrom, Myles L.

PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA

SOURCE: PCT Int. Appl., 12 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9748733	A1	19971224	WO 1996-US16729	19961018
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
US 5908874	A	19990601	US 1996-665613	19960618
AU 9674552	A1	19980107	AU 1996-74552	19961018
PRIORITY APPLN. INFO.:			US 1996-665613	A 19960618
			WO 1996-US16729	W 19961018
AB	An acrylic composition, which is cured by exposure to radiation, has added thereto a fluorochem. surfactant in sufficient quantity to reduce the melting temperature of the composition compared with that of the composition absent of the fluorochem., and is particularly useful in manufacturing optical microstructural articles. Thus, a mixture of Photomer 4035 12.5, RDX 51027 30, EB 220 (urethane acrylate) 20, and BR 31 37.5% was heated to 65° for 1 h, and a fluorochem. surfactant Fluorad FC-430 was added to the melt (total 0.3%) to give an uncured resin having melting temperature about 40°, compared with 55° without Fluorad FC-430.			
IC	ICM C08F002-02			
	ICS C08F002-06			

CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 73

ST acrylic compn contg fluorochem surfactant; fluorosurfactant redn melting temp acrylic resin; optical article radiation cure acrylic resin; Photomer RDX acrylate polymer compn; Fluorad fluorochem surfactant acrylate polymer compn

IT Acrylic polymers, preparation  
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)  
(fluorine-containing; preparation of radiation-curable acrylic resins comprising fluorosurfactants and having reduced melting temperature which are useful for optical articles)

IT Surfactants  
(fluorosurfactants, polymerizable; preparation of radiation-curable acrylic resins comprising fluorosurfactants and having reduced melting temperature which are useful for optical articles)

IT Crosslinking  
(photochem.; preparation of radiation-curable acrylic resins comprising fluorosurfactants and having reduced melting temperature which are useful for optical articles)

IT Fluoropolymers, preparation  
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)  
(polyacrylate-; preparation of radiation-curable acrylic resins comprising fluorosurfactants and having reduced melting temperature which are useful for optical articles)

IT Optical materials  
(preparation of radiation-curable acrylic resins comprising fluorosurfactants and having reduced melting temperature which are useful for optical articles)

IT Crosslinking  
(radiochem.; preparation of radiation-curable acrylic resins comprising fluorosurfactants and having reduced melting temperature which are useful for optical articles)

IT 201010-89-1P  
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)  
(preparation of radiation-curable acrylic resins comprising fluoro surfactants and having reduced melting temperature which are useful for optical articles)

IT 201010-90-4P 201010-91-5P 201010-92-6P  
201010-93-7P 201010-94-8P 201154-91-8P  
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)  
(preparation of radiation-curable acrylic resins comprising fluorosurfactants and having reduced melting temperature which are useful for optical articles)

IT 201010-89-1P  
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)  
(preparation of radiation-curable acrylic resins comprising fluoro surfactants and having reduced melting temperature which are useful for optical articles)

RN 201010-89-1 HCAPLUS

CN 2-Propenoic acid, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy(2-hydroxy-3,1-propanediyl)] ester, polymer with Fluorad FC 430, (4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-bis[[1-oxo-2-propenyl)oxy)methyl]-3,1-propanediyl]] di-2-propenoate,

$\alpha$ -(1-oxo-2-propenyl)- $\omega$ -(tribromophenoxy)poly(oxy-1,2-ethanediyl) and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

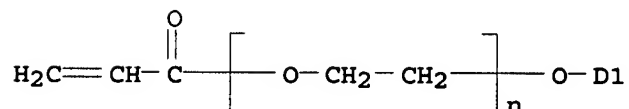
CRN 137077-05-5

CMF (C2 H4 O)<sub>n</sub> C9 H5 Br3 O2

CCI IDS, PMS



3 (D1-Br)

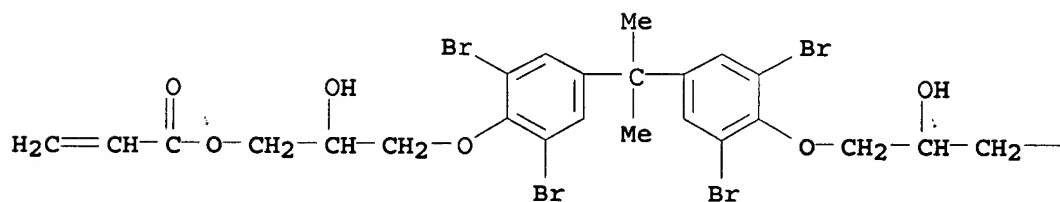


CM 2

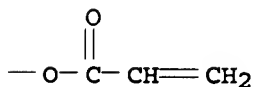
CRN 66696-45-5

CMF C27 H28 Br4 O8

PAGE 1-A



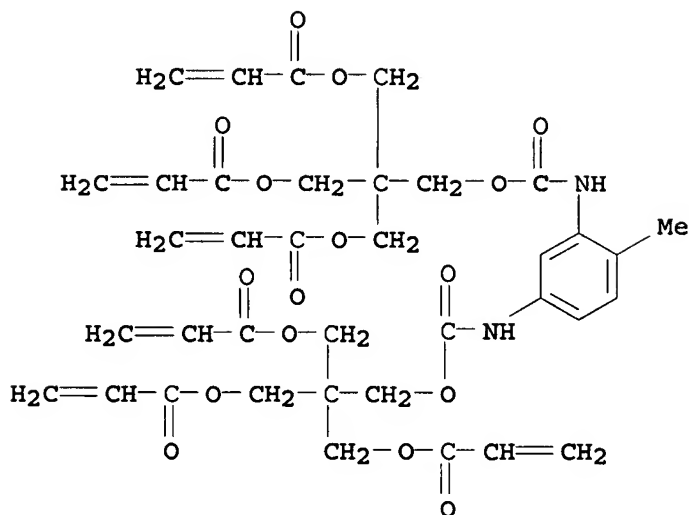
PAGE 1-B



CM 3

CRN 50843-44-2

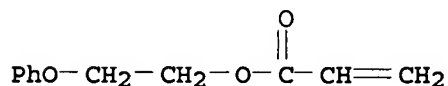
CMF C37 H42 N2 O16



CM 4

CRN 48145-04-6

CMF C11 H12 O3



CM 5

CRN 11114-17-3

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 201010-90-4P 201010-91-5P 201010-92-6P

201010-93-7P 201010-94-8P 201154-91-8P

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)  
(preparation of radiation-curable acrylic resins comprising

fluorosurfactants and having reduced melting temperature which are useful

for

optical articles)

RN 201010-90-4 HCAPLUS

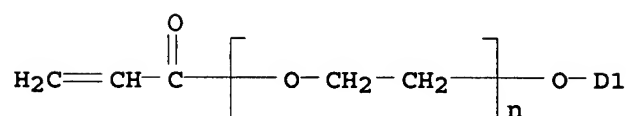
CN 2-Propenoic acid, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy(2-hydroxy-3,1-propanediyl)] ester, polymer with α-[2-ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl]-ω-methoxypoly(oxy-1,2-ethanediyl), (4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-bis[(1-oxo-2-propenyl)oxy]methyl]-3,1-propanediyl]] di-2-propenoate, α-(1-oxo-2-propenyl)-ω-(tribromophenoxy)poly(oxy-1,2-ethanediyl) and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 137077-05-5  
 CMF (C2 H4 O)<sub>n</sub> C9 H5 Br3 O2  
 CCI IDS, PMS

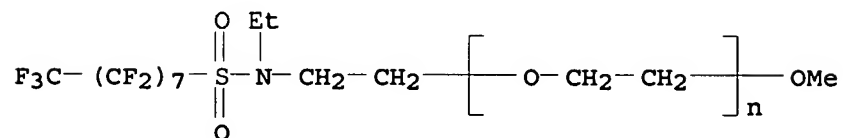


3 ( D1-Br )



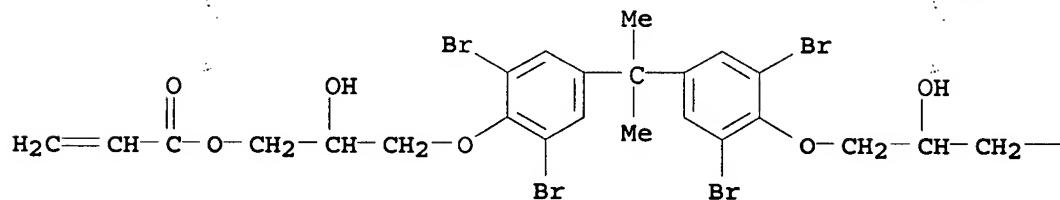
CM 2

CRN 68958-61-2  
 CMF (C2 H4 O)<sub>n</sub> C13 H12 F17 N O3 S  
 CCI PMS



CM 3

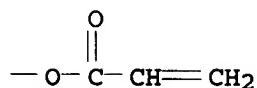
CRN 66696-45-5  
 CMF C27 H28 Br4 O8



PAGE 1-A



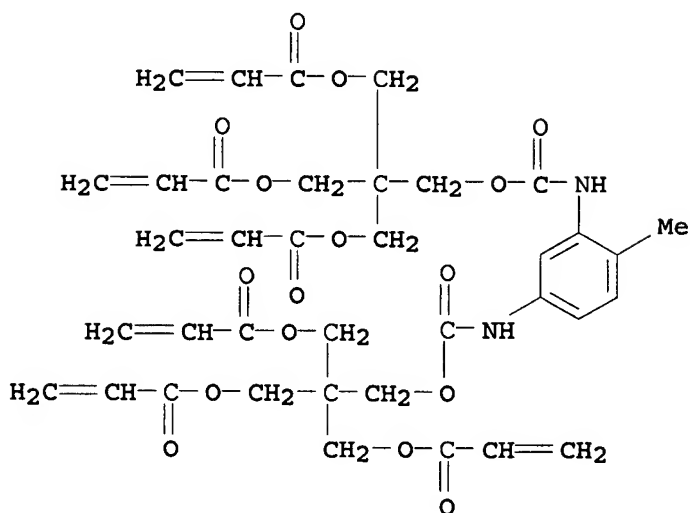
PAGE 1-B



CM 4

CRN 50843-44-2

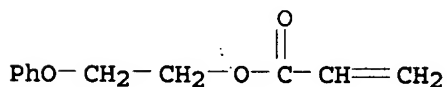
CMF C37 H42 N2 O16



CM 5

CRN 48145-04-6

CMF C11 H12 O3



RN 201010-91-5 HCAPLUS

CN 2-Propenoic acid, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy(2-hydroxy-3,1-propanediyl)] ester, polymer with Fluorad FC 722, (4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-bis[(1-oxo-2-propenyl)oxy]methyl]-3,1-propanediyl]] di-2-propenoate, α-(1-oxo-2-propenyl)-ω-(tribromophenoxy)poly(oxy-1,2-ethanediyl) and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 151853-81-5

CMF Unspecified  
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

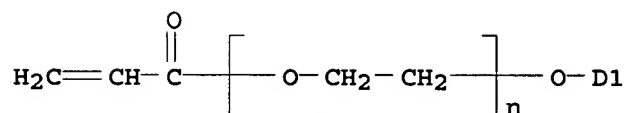
CRN 137077-05-5

CMF (C2 H4 O)<sub>n</sub> C9 H5 Br3 O2

CCI IDS, PMS



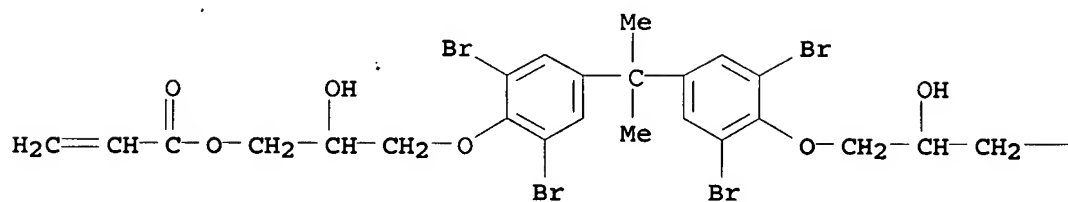
3 ( D1- Br )



CM 3

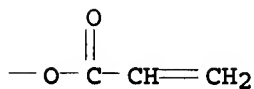
CRN 66696-45-5

CMF C27 H28 Br4 O8



PAGE 1-A

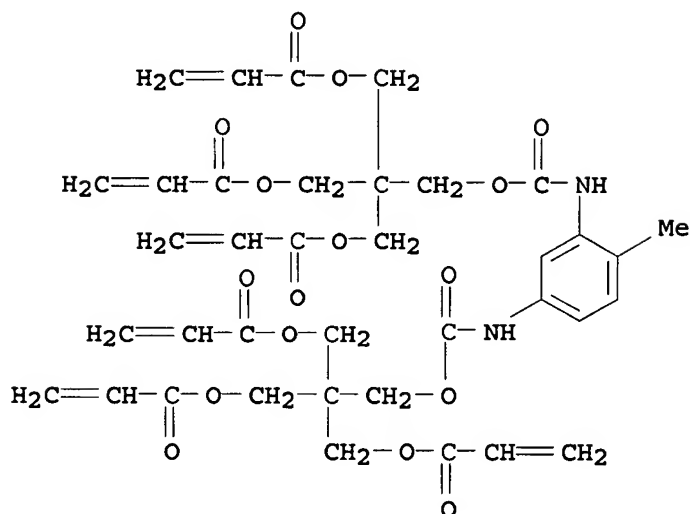
PAGE 1-B



CM 4

CRN 50843-44-2

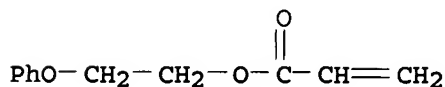
CMF C37 H42 N2 O16



CM 5

CRN 48145-04-6

CMF C11 H12 O3



RN 201010-92-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl ester, polymer with (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy(2-hydroxy-3,1-propanediyl)] di-2-propenoate, (4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-bis[(1-oxo-2-propenyl)oxy]methyl]-3,1-propanediyl]] di-2-propenoate, α-(1-oxo-2-propenyl)-ω-(tribromophenoxy)poly(oxy-1,2-ethanediyl) and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

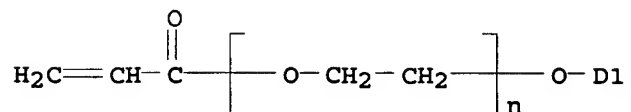
CRN 137077-05-5

CMF (C2 H4 O)n C9 H5 Br3 O2

CCI IDS, PMS



3 ( D1-Br )

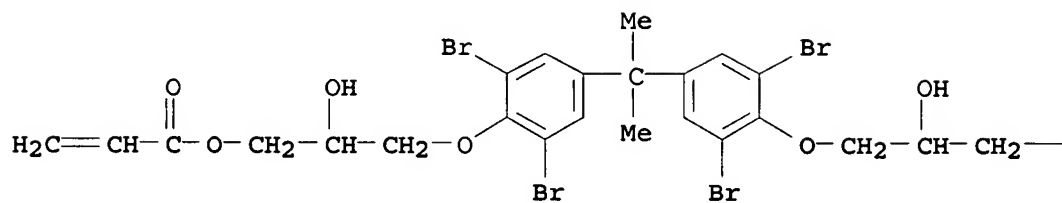


CM 2

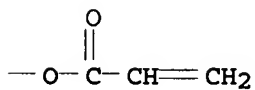
CRN 66696-45-5

CMF C27 H28 Br4 O8

PAGE 1-A



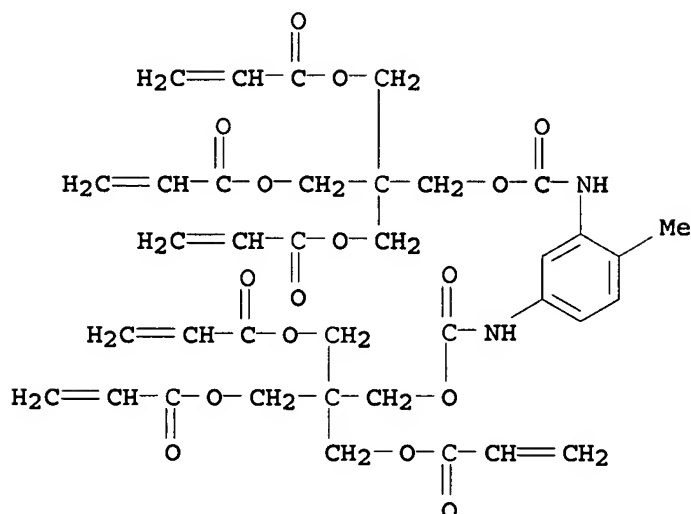
PAGE 1-B



CM 3

CRN 50843-44-2

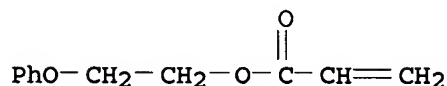
CMF C37 H42 N2 O16



CM 4

CRN 48145-04-6

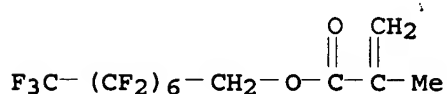
CMF C11 H12 O3



CM 5

CRN 3934-23-4

CMF C12 H7 F15 O2



RN 201010-93-7 HCAPLUS

CN 2-Propenoic acid, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy(2-hydroxy-3,1-propanediyl)] ester, polymer with 2-[butyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl 2-propenoate, (4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-bis[[1-oxo-2-propenyl]oxy]methyl]-3,1-propanediyl]] di-2-propenoate, alpha-(1-oxo-2-propenyl)-omega-(tribromophenoxy)poly(oxy-1,2-ethanediyl) and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

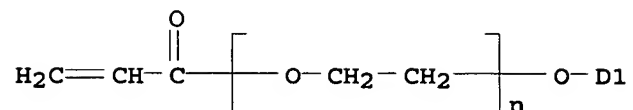
CRN 137077-05-5

CMF (C2 H4 O)n C9 H5 Br3 O2

CCI IDS, PMS



3 ( D1-Br )

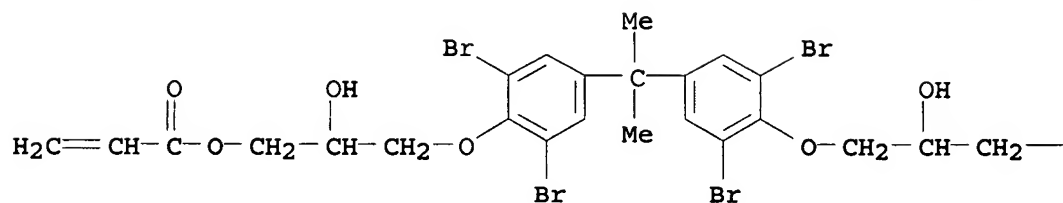


CM 2

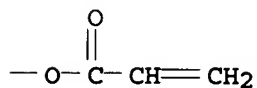
CRN 66696-45-5

CMF C27 H28 Br4 O8

PAGE 1-A



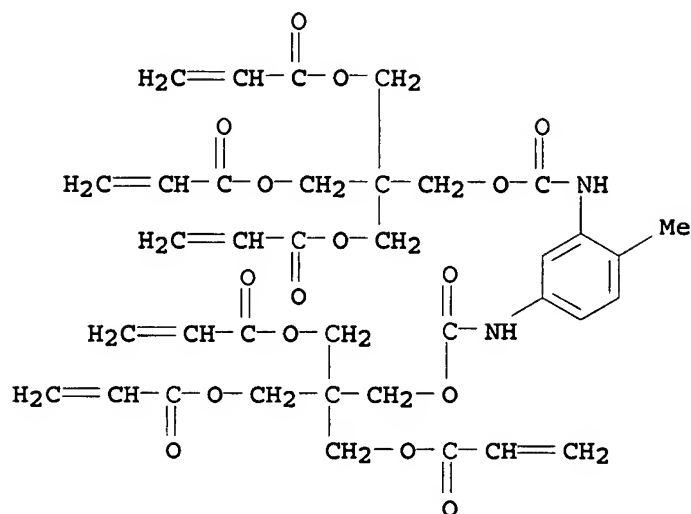
PAGE 1-B



CM 3

CRN 50843-44-2

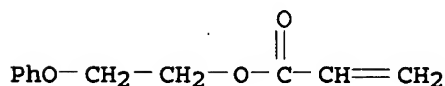
CMF C37 H42 N2 O16



CM 4

CRN 48145-04-6

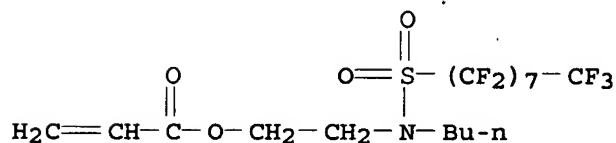
CMF C11 H12 O3



CM 5

CRN 383-07-3

CMF C17 H16 F17 N O4 S



RN 201010-94-8 HCAPLUS

CN 2-Propenoic acid, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy(2-hydroxy-3,1-propanediyl)] ester, polymer with Fluorad FC 740, (4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]-3,1-propanediyl]] di-2-propenoate, α-(1-oxo-2-propenyl)-ω-(tribromophenoxy)poly(oxy-1,2-ethanediyl) and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

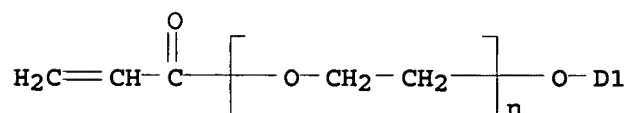
CRN 137077-05-5

CMF (C2 H4 O)n C9 H5 Br3 O2

CCI IDS, PMS



3 ( D1-Br )



CM 2

CRN 78768-89-5

CMF Unspecified

CCI MAN

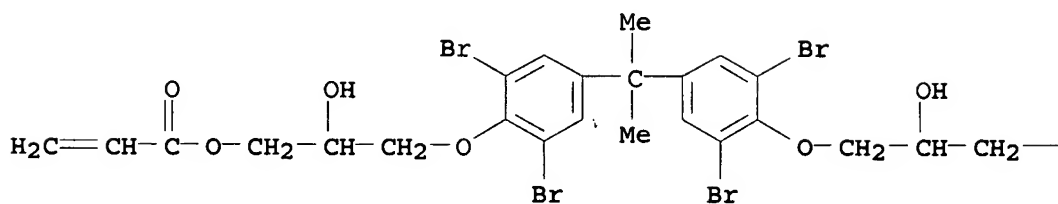
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

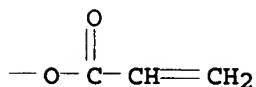
CRN 66696-45-5

CMF C27 H28 Br4 O8

PAGE 1-A



PAGE 1-B

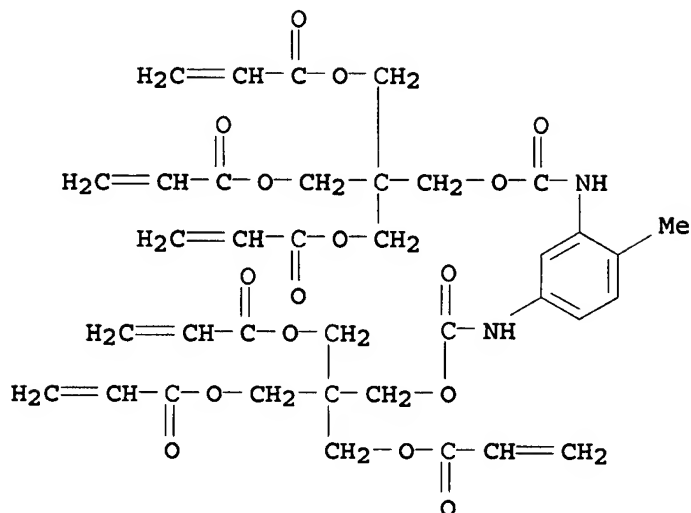


CM 4

CRN 50843-44-2

CMF C37 H42 N2 O16

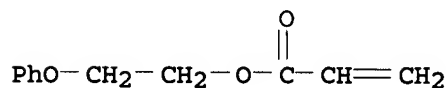




CM 5

CRN 48145-04-6

CMF C11 H12 O3



RN 201154-91-8 HCAPLUS

CN 2-Propenoic acid, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy(2-hydroxy-3,1-propanediyl)] ester, polymer with Fluorad FC 724, (4-methyl-1,3-phenylene)bis[iminocarbonyloxy[2,2-bis[[1-oxo-2-propenyl)oxy]methyl]-3,1-propanediyl]] di-2-propenoate, α-(1-oxo-2-propenyl)-ω-(tribromophenoxy)poly(oxy-1,2-ethanediyl) and 2-phenoxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 201097-83-8

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

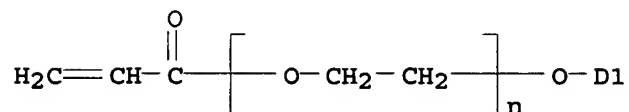
CRN 137077-05-5

CMF (C2 H4 O)<sub>n</sub> C9 H5 Br3 O2

CCI IDS, PMS



3 ( D1-Br )

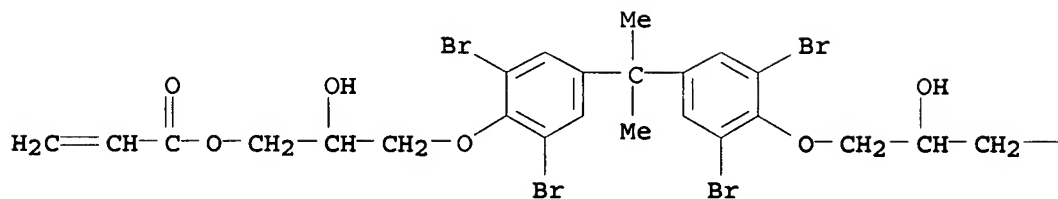


CM 3

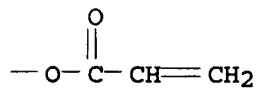
CRN 66696-45-5

CMF C27 H28 Br4 O8

PAGE 1-A



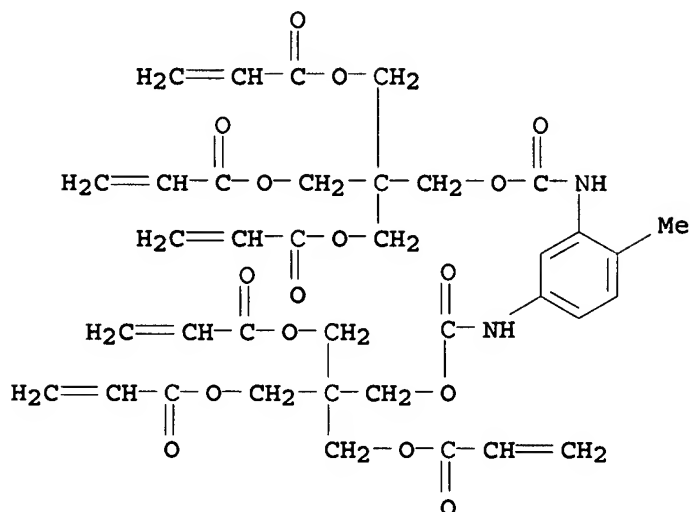
PAGE 1-B



CM 4

CRN 50843-44-2

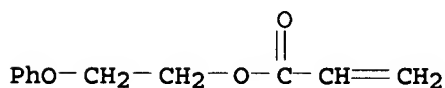
CMF C37 H42 N2 O16



CM 5

CRN 48145-04-6

CMF C11 H12 O3



L31 ANSWER 15 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:1005327 HCAPLUS

DOCUMENT NUMBER: 124:31218

TITLE: Acrylic resin compositions for use in insulation of multilayer laminates of electric circuit boards

INVENTOR(S): Hiraoka, Hideki; Matsumoto, Takeya; Yasui, Haruhiko; Kanbayashi, Tomio; Haruta, Yoichi

PATENT ASSIGNEE(S): Toa Gosei Kk, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07233226	A2	19950905	JP 1994-51422	19940224
JP 3430617	B2	20030728		

PRIORITY APPLN. INFO.: JP 1994-51422 19940224

AB The title alkali-developable compns. comprise (A) glycidyl (meth)acrylate adducts of acrylic polymers, (B) (meth)acrylate esters of the glycidyl ethers of halogenated phenol compds., (C) polymerization initiators and

P-containing fireproofing agents. Thus, heating a Bu methacrylate-hydroxyethyl methacrylate-methacrylic acid-Me methacrylate-styrene copolymer with

glycidyl methacrylate in the presence of of benzyldimethylamine and hydroquinone gave an adduct with C=C group content 0.78 mmol/g, acid value 1.8 mequiv/g and solids content 40%. Mixing the adduct 112.5 with 90%-solids tetrabromobisphenol A diglycidyl ether dimethacrylate 46.1, dicumyl peroxide 0.5, triaryl phosphate 7, pentaerythritol triacrylate 6 and Aronix M1600 7.5 parts gave a title composition

IC ICM C08F265-06  
CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 38, 76  
ST elec printed circuit board insulation; epoxy acrylic resin adduct insulation; glycidyl acrylic resin adduct insulation; alkali developing acrylic resin compn; multilayer laminate acrylic resin compn  
IT Electric insulators and Dielectrics  
Fireproofing agents  
(radiation-curable acrylic resin compns. for use in insulation of multilayer laminates of elec. circuit boards)  
IT Electric circuits  
(printed, boards, radiation-curable acrylic resin compns. for use in insulation of multilayer laminates of elec. circuit boards)  
IT 7664-38-2D, Phosphoric acid, aryl esters  
RL: MOA (Modifier or additive use); USES (Uses)  
(fireproofing agents; radiation-curable acrylic resin compns. for use in insulation of multilayer laminates of elec. circuit boards)  
IT 115-86-6, Triphenyl phosphate  
RL: MOA (Modifier or additive use); USES (Uses)  
(radiation-curable acrylic resin compns. for use in insulation of multilayer laminates of elec. circuit boards)  
IT 171852-04-3  
RL: TEM (Technical or engineered material use); USES (Uses)  
(radiation-curable acrylic resin compns. for use in insulation of multilayer laminates of elec. circuit boards)  
IT 171852-04-3  
RL: TEM (Technical or engineered material use); USES (Uses)  
(radiation-curable acrylic resin compns. for use in insulation of multilayer laminates of elec. circuit boards)  
RN 171852-04-3 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, polymer with Aronix M 1600, butyl 2-methyl-2-propenoate, ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate, 2-(hydroxymethyl)-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy(2-hydroxy-3,1-propanediyl)] bis(2-methyl-2-propenoate) and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 100629-45-6

CMF Unspecified

CCI MAN

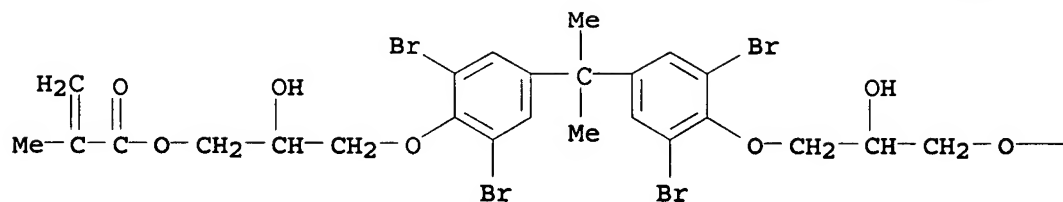
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

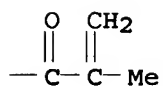
CRN 17658-95-6

CMF C29 H32 Br4 O8

PAGE 1-A



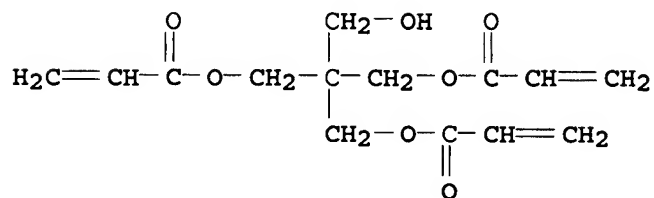
PAGE 1-B



CM 3

CRN 3524-68-3

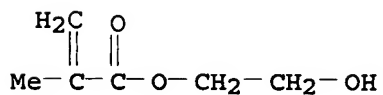
CMF C14 H18 O7



CM 4

CRN 868-77-9

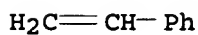
CMF C6 H10 O3



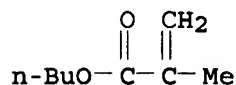
CM 5

CRN 100-42-5

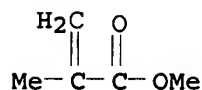
CMF C8 H8



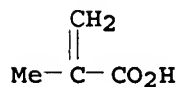
CM 6

CRN 97-88-1  
CMF C8 H14 O2

CM 7

CRN 80-62-6  
CMF C5 H8 O2

CM 8

CRN 79-41-4  
CMF C4 H6 O2

L31 ANSWER 16 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:581207 HCAPLUS

DOCUMENT NUMBER: 121:181207

TITLE: Polymerizable (meth)acrylate compositions and their  
polymers for impact-resistant plastic lenses with high  
refractive index

INVENTOR(S): Kanezaki, Hiroyuki; Uekami, Koji; Nagao, Keishiro

PATENT ASSIGNEE(S): Daisow Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

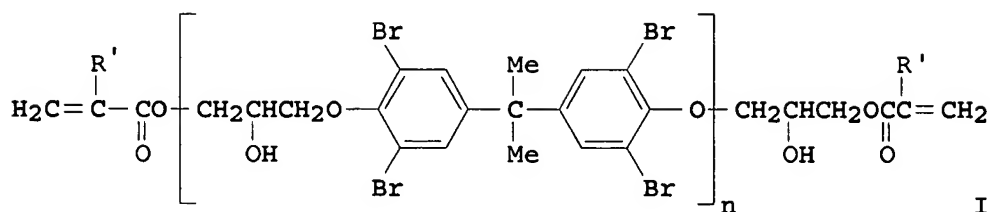
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 06100643	A2	19940412	JP 1992-252341	19920922
PRIORITY APPLN. INFO.: GI			JP 1992-252341	19920922



AB Title compns. comprise 100 parts solns. of 20-60 parts I (R1 = H, Me; n = 1-6) in 40-80 parts mixts. of 5-80% halo-free polyfunctional (meth)acrylates containing aromatic rings and  $\geq 2$  (meth)acryloyl groups and 20-95% styrenic compds. and 5-20 parts glycidyl ethers of ring-substituted phenols (for example, o-phenylphenyl glycidyl ether) and they are polymerized in the presence of a radical polymerization initiator. Thus, a mixture of tetrabromobisphenol A glycidyl ether dimethacrylate 35, 2,2-bis[4-(2-methacryloyloxyethoxy)phenyl]propane 30, vinyltoluene 25, and o-phenylphenyl glycidyl ether 10 parts was polymerized in a mold constructed of two glass plates and a gasket to give a polymer plate (60 + 60 + 3 mm) with refractive index 1.592, Abbe number 32, d. 1.30, yellowness (b\*) 0.6, glass temperature 102°, and good falling weight impact resistance.

IC ICM C08F299-02

ICS C08F002-44; G02B001-04; G02B007-02

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 35

ST plastic lens bromine epoxy acrylate; impact resistance acrylic plastic lens; phenylphenyl glycidyl ether acrylic lens

IT Impact-resistant materials

(plastic lenses, epoxy (meth)acrylate polymers containing phenylphenyl glycidyl ether for)

IT Lenses

(plastic, impact-resistant, epoxy (meth)acrylate polymers containing phenylphenyl glycidyl ether for)

IT 7144-65-2

RL: USES (Uses)

(epoxy (meth)acrylate polymers containing, impact-resistant, with high refractive index, for plastic lenses)

IT 157669-10-8P 157669-11-9P 157669-12-0P 157669-13-1P

157669-14-2P 157669-15-3P 157669-16-4P 157669-17-5P

157669-18-6P

RL: PREP (Preparation)

(preparation of, crosslinked, containing phenylphenyl glycidyl ether, impact-resistant, with high refractive index, for plastic lenses)

IT 157669-14-2P 157669-15-3P

RL: PREP (Preparation)

(preparation of, crosslinked, containing phenylphenyl glycidyl ether, impact-resistant, with high refractive index, for plastic lenses)

RN 157669-14-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyl-2-[[[2-methyl-1-oxo-2-propenyl]oxy]methyl]-1,3-propanediyl ester, polymer with ethenylmethylbenzene, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy(2-hydroxy-3,1-propanediyl)] bis(2-methyl-2-propenoate) and (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 25013-15-4  
CMF C9 H10  
CCI IDS

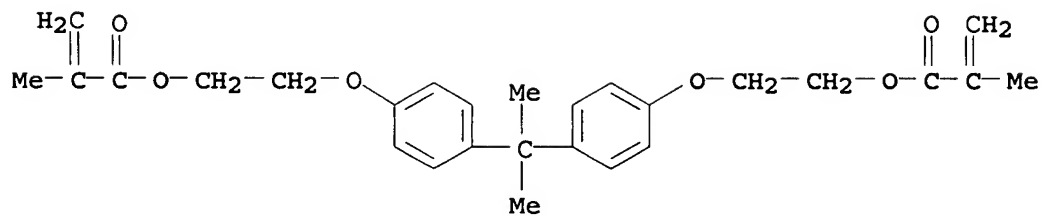


D1- Me

D1- CH=CH<sub>2</sub>

CM 2

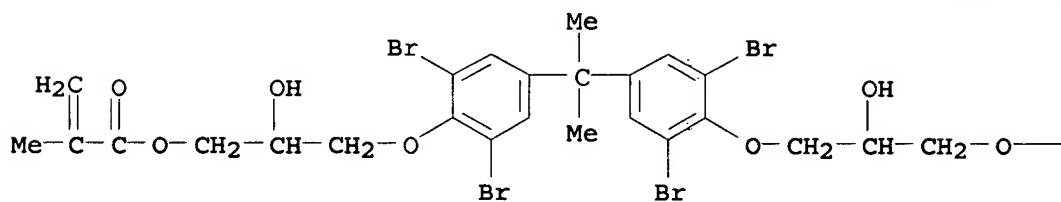
CRN 24448-20-2  
CMF C27 H32 O6



CM 3

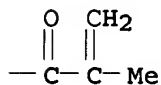
CRN 17658-95-6  
CMF C29 H32 Br4 O8

PAGE 1-A





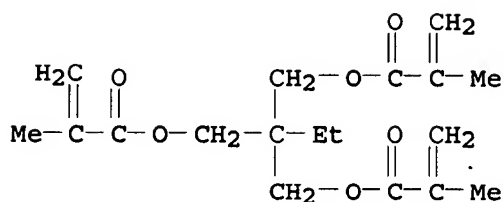
PAGE 1-B



CM 4

CRN 3290-92-4

CMF C18 H26 O6



RN 157669-15-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyl-2-[[[(2-methyl-1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with diethenylbenzene, ethenylmethylbenzene, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy(2-hydroxy-3,1-propanediyl)] bis(2-methyl-2-propenoate) and (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 25013-15-4

CMF C9 H10

CCI IDS



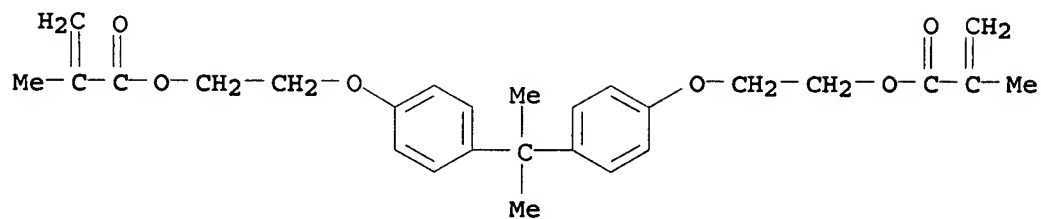
D1-Me

D1-CH=CH<sub>2</sub>

CM 2

CRN 24448-20-2

CMF C27 H32 O6

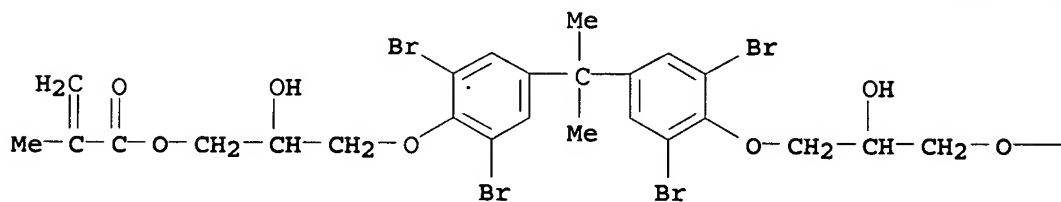


CM 3

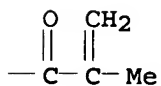
CRN 17658-95-6

CMF C29 H32 Br4 O8

PAGE 1-A



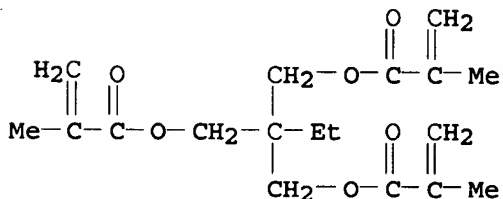
PAGE 1-B



CM 4

CRN 3290-92-4

CMF C18 H26 O6

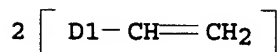


CM 5

CRN 1321-74-0

CMF C10 H10

CCI IDS



L31 ANSWER 17 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:510955 HCAPLUS

DOCUMENT NUMBER: 121:110955

TITLE: Polymerizable compositions and high-refractive-index plastic lenses therefrom

INVENTOR(S): Kanezaki, Hiroyuki; Mikami, Masafumi; Saiga, Tetsuyuki; Nagao, Keishiro

PATENT ASSIGNEE(S): Daisow Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06049133	A2	19940222	JP 1992-207607	19920804
PRIORITY APPLN. INFO.:			JP 1992-207607	19920804

AB The title compns. contain 20-60 parts 2,2-bis[4-(2-(meth)acryloyloxyethoxy)-3,5-dibromophenyl]propane, 40-80 parts mixts. containing 5-80% halogen-free >C15 polyfunctional (meth)acrylates optionally containing radically polymerizable polyfunctional unsatd. monomers and 20-95% styrenes optionally containing radically polymerizable monofunctional unsatd. monomers, and 5-20 parts (based on 100 parts above mixts.) ring-substituted phenol glycidyl ethers which impart flexibility and impact resistance. Thus, a polymer was prepared from 2,2-bis[4-(2-methacryloyloxyethoxy)-3,5-dibromophenyl]propane 40, 2,2-bis[4-(2-methacryloyloxyethoxy)phenyl]propane 20, vinyltoluene 30, o-phenylphenyl glycidyl ether 10 parts, and 0.2% azobis-2,4-dimethylvaleronitrile.

IC ICM C08F212-04  
ICS C08F220-30; G02B001-04

CC 38-3 (Plastics Fabrication and Uses)

ST bromobisphenol methacryloyloxyethyl ether polymer lens; plasticizer impact modifier lens; phenylphenyl glycidyl ether plasticizer

IT Lenses  
(copolymers of bis[(methacryloyloxyethoxy)dibromophenyl]propane and bis[(methacryloyloxyethoxy)phenyl]propane and vinyltoluene for, with high refractive index)

IT Plasticizers  
(phenylphenyl glycidyl ether, for plastic lenses)

IT Impact-resistant materials  
(plastic lenses, containing phenylphenyl glycidyl ether)

IT Polymerization  
(casting, of bis[(methacryloyloxyethoxy)dibromophenyl]propane and

bis[(methacryloyloxyethoxy)phenyl]propane and vinyltoluene, for lenses)

IT 7144-65-2

RL: USES (Uses)

(flexibilizers and impact modifiers, for plastic lenses)

IT 156018-03-0P 156018-04-1P 156018-05-2P 156018-06-3P

156018-07-4P 156018-08-5P 156018-09-6P 156018-10-9P

RL: PREP (Preparation)

(manufacture of, for lenses)

IT 156018-06-3P 156018-07-4P

RL: PREP (Preparation)

(manufacture of, for lenses)

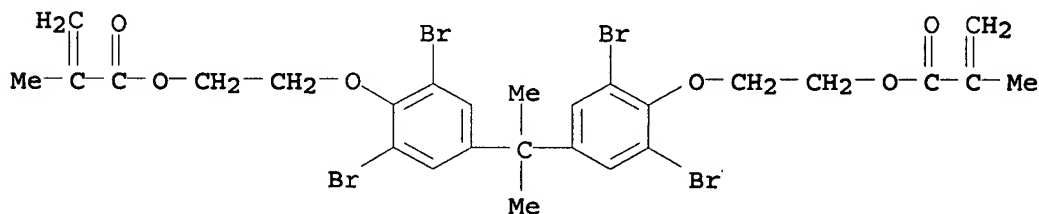
RN 156018-06-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyl-2-[[[(2-methyl-1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with ethenylmethylbenzene and (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy-2,1-ethanediyl] bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 67006-39-7

CMF C27 H28 Br4 O6



CM 2

CRN 25013-15-4

CMF C9 H10

CCI IDS



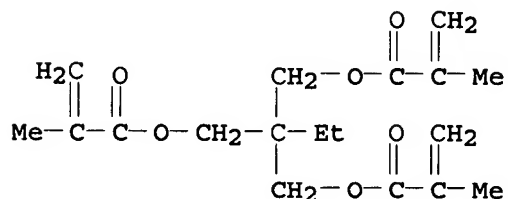
D1-Me

D1-CH=CH2

CM 3

CRN 3290-92-4

CMF C18 H26 O6



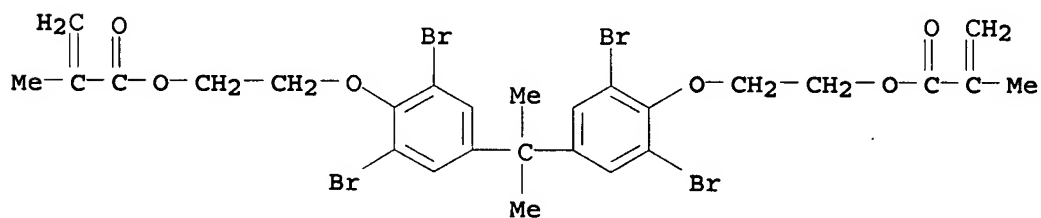
RN 156018-07-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyl-2-[[[(2-methyl-1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with diethenylbenzene, ethenylmethylbenzene and (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy-2,1-ethanediyl] bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 67006-39-7

CMF C27 H28 Br4 O6



CM 2

CRN 25013-15-4

CMF C9 H10

CCI IDS



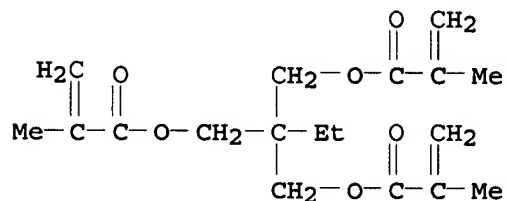
D1- Me

D1- CH=CH<sub>2</sub>

CM 3

CRN 3290-92-4

CMF C18 H26 O6

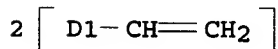


CM 4

CRN 1321-74-0

CMF C10 H10

CCI IDS



L31 ANSWER 18 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:532475 HCAPLUS

DOCUMENT NUMBER: 117:132475

TITLE: Dyeing of plastic eyeglass lenses

INVENTOR(S): Arakawa, Tsutomu; Minorikawa, Naoki; Otake, Isao; Ootake, Isao; Maruyama, Satoshi

PATENT ASSIGNEE(S): Showa Denko K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04119178	A2	19920420	JP 1990-229907	19900831
PRIORITY APPLN. INFO.:			JP 1990-229907	19900831

AB Discoloration-resistant colored eyeglass lenses are manufactured by immersing lenses composed of resins containing  $\geq 1$  of aromatic ring, halogen other than F, and S in an aqueous disperse dye solution containing 0.001-5% Ni p-toluenesulfonate (I). A lens manufactured from 50 parts diallyl phthalate and 50 parts CR 39 was immersed in an aqueous solution containing Seiko Brown D and I

to give a brown lens with light transmission (550 nm) 50% initially and 52% after 24 h of accelerated weathering.

IC ICM D06P001-16

ICS G02B001-04; G02C007-10

CC 38-2 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 37

ST nickel tosylate dyeing plastic lens; discoloration prevention dyeing plastic lens; light stabilizer plastic lens; weather resistance dye plastic lens; eyeglass lens dye weather resistance

IT Light stabilizers  
 (nickel tosylate, in dyed plastic lenses)

IT Discoloration prevention  
 (of dyed plastic lenses, nickel tosylate for)

IT Dyeing  
 (of plastic eyeglass lenses, nickel tosylate in, for discoloration resistance)

IT Lenses  
 (plastic, dyeing of, nickel tosylate in, for discoloration resistance)

IT 36907-28-5, Nickel p-toluenesulfonate  
 RL: USES (Uses)  
 (in dyed plastic eyeglass lenses, for discoloration resistance)

IT 59933-96-9 143499-82-5 143499-83-6  
 RL: USES (Uses)  
 (lenses, dyed, nickel tosylate in, for discoloration resistance)

IT 143499-83-6  
 RL: USES (Uses)  
 (lenses, dyed, nickel tosylate in, for discoloration resistance)

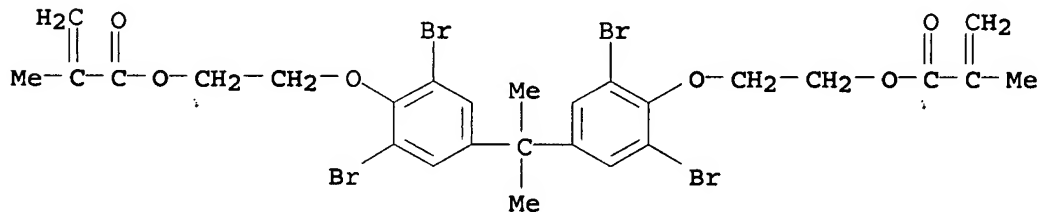
RN 143499-83-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyl-2-[[2-methyl-1-oxo-2-propenyl)oxy)methyl]-1,3-propanediyl ester, polymer with 1-chloro-4-ethenylbenzene and (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy-2,1-ethanediyl] bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 67006-39-7

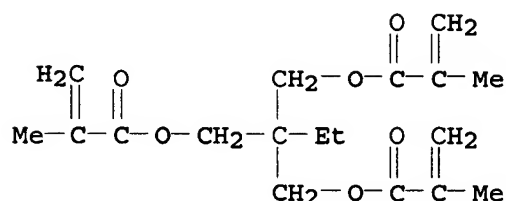
CMF C27 H28 Br4 O6



CM 2

CRN 3290-92-4

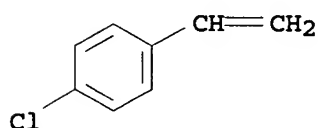
CMF C18 H26 O6



CM 3

CRN 1073-67-2

CMF C8 H7 Cl



L31 ANSWER 19 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:459003 HCAPLUS

DOCUMENT NUMBER: 117:59003

TITLE: Holographic material imageable by long wavelength laser beam

INVENTOR(S): Ichihashi, Taichi; Tanigawa, Hideo; Nagata, Akira

PATENT ASSIGNEE(S): Agency of Industrial Sciences and Technology, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03249685	A2	19911107	JP 1990-48622	19900227
JP 04032391	B4	19920529		

PRIORITY APPLN. INFO.: JP 1990-48622 19900227

AB In the title material comprising allyl diglycol carbonate, 2, 2-bis[3, 5-dibromo-4-(2-methacryloyloxyethoxy)phenyl]propane, and a photopolymn. initiators, methylene blue and triethanolamine are used together as the photopolymn. initiators.

IC ICM G03H001-02

ICS G03F007-027

CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST hologram material photopolymn initiator; methylene blue photopolymn initiator hologram; triethanolamine photopolymn initiator hologram

IT Holography

(hologram-forming materials for, containing photopolymn. catalysts)

IT Polymerization catalysts

(photochem., methylene blue-triethanolamine, for allyl diglycol carbonate and bisdibromomethacryloyloxyethoxyphenylpropane)

IT 61-73-4, Methylene blue 102-71-6, Triethanolamine, uses



RL: CAT (Catalyst use); USES (Uses)

(catalyst, for photopolymer. of allyl diglycol carbonate with  
bis(dibromomethacryloyloxyethoxyphenyl)propane)

IT 142571-62-8P 142571-63-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and use of, as photopolymer. initiator for holog. materials)

IT 142571-63-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and use of, as photopolymer. initiator for holog. materials)

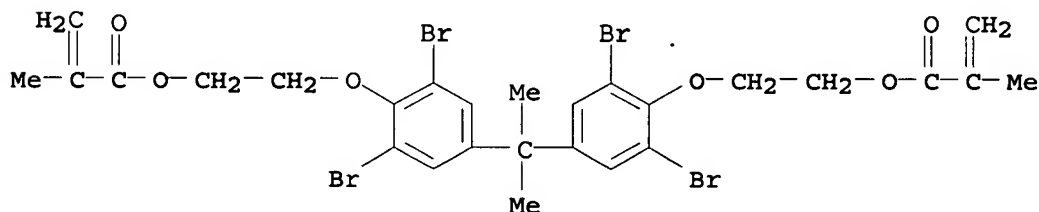
RN 142571-63-9 HCAPLUS

CN 2,5,8,10-Tetraoxatridec-12-enoic acid, 9-oxo-, 2-propenyl ester, polymer  
with 2-(hydroxymethyl)-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl  
di-2-propenoate and (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy-  
2,1-ethanediyl] bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 67006-39-7

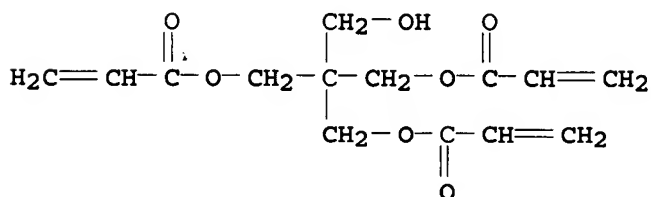
CMF C27 H28 Br4 O6



CM 2

CRN 3524-68-3

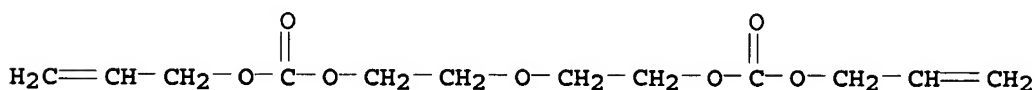
CMF C14 H18 O7



CM 3

CRN 142-22-3

CMF C12 H18 O7



L31 ANSWER 20 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1989:59096 HCAPLUS

DOCUMENT NUMBER: 110:59096

TITLE: Electrically insulating heat-resistant flame-retardant resins

INVENTOR(S): Doi, Makoto; Nakajima, Hiroyuki; Miyamoto, Fumiyuki; Oka, Seiji; Nonogaki, Mitsuhiro

PATENT ASSIGNEE(S): Mitsubishi Electric Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

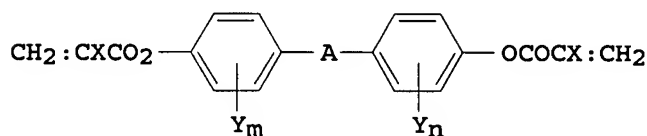
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63172716	A2	19880716	JP 1987-4282	19870112
JP 06041499	B4	19940601		
US 4882389	A	19891121	US 1987-135078	19871218
PRIORITY APPLN. INFO.:			JP 1987-4281	A 19870112
			JP 1987-4282	A 19870112

OTHER SOURCE(S): MARPAT 110:59096

GI



AB Title resins, useful for printed circuit boards, are prepared by heat curing of compns. comprising (A) copolymers containing  $\geq 50$  mol% 1,2-butadiene units with vinyl groups 100, (B) compds. with  $\geq 3$  vinyl groups 10-100, (C)  $\geq 1$  acrylic compound selected from  $\text{CH}_2\text{:CXZC}_6\text{H}_2\text{-2,4,6-Br}_3$  [ $\text{X} = \text{H, Me; Z} = \text{CH}_2\text{O, CO}_2, \text{OC(O)}$ ] 25-100 and diacrylates I [ $\text{Y} = \text{Br, Cl; X} = \text{H, Me; A} = \text{O, CO, SO}_2, \text{CH:CH, CMe}_2, (\text{CH}_2)_a$ ;  $m, n = 1-4, a = 0-4$ ] 25-200 parts, and (D) organic peroxides. Thus, JSR RB-810 80, FA 731A (II) 20, and 2,4,6-tribromophenyl acrylate (III) 35 g were polymerized in the presence of dicumyl peroxide in vacuo at  $120-180^\circ$  for 6 h to give title resin showing dielec. constant 3.02, thermal expansion  $105 \mu\text{m/m}^\circ\text{C}$ , and glass temperature  $165^\circ$ , vs.  $4.22, 390$ , and  $44$ , resp., for the resin without II and III.

IC ICM C08F279-02

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 74

ST polybutadiene resin elec insulator fireproof; butadiene acrylate copolymer heat resistance; bromophenyl acrylate copolymer elec insulator; printed circuit board polybutadiene resin

IT Glass fibers, uses and miscellaneous

RL: USES (Uses)

(textiles, for preregs containing halo-containing acrylic compound-butadiene

copolymers, for printed circuit boards)

IT Heat-resistant materials

(dielec., fire-resistant, halo-containing acrylic compound-butadiene copolymers)

IT Fire-resistant materials  
(dielec., heat-resistant, halo-containing acrylic compound-butadiene copolymers)

IT Electric insulators and Dielectrics  
(fire- and heat-resistant, halo-containing acrylic compound-butadiene copolymers)

IT Electric circuits  
(printed, boards, halo-containing acrylic compound-butadiene copolymers for, elec.-insulating, fireproof, heat-resistant)

IT 7440-50-8, Copper, uses and miscellaneous  
RL: USES (Uses)  
(foil, for laminates with halo-containing acrylic compound-butadiene copolymer-containing prepregs, for printed circuit boards)

IT 118677-17-1P  
RL: PREP (Preparation)  
(preparation of, elec.-insulating, heat-resistant, fireproof, for printed circuit boards)

IT 118677-18-2P  
RL: PREP (Preparation)  
(preparation of, elec.-insulating, heat-resistant, fireproof, for printed circuit boards)

IT 118677-18-2P  
RL: PREP (Preparation)  
(preparation of, elec.-insulating, heat-resistant, fireproof, for printed circuit boards)

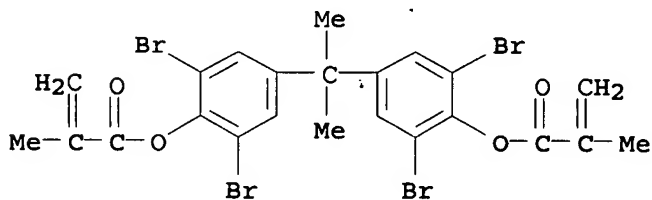
RN 118677-18-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triy)tri-2,1-ethanediyl ester, polymer with 1,3-butadiene and (1-methylethylidene)bis(2,6-dibromo-4,1-phenylene) bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 42146-13-4

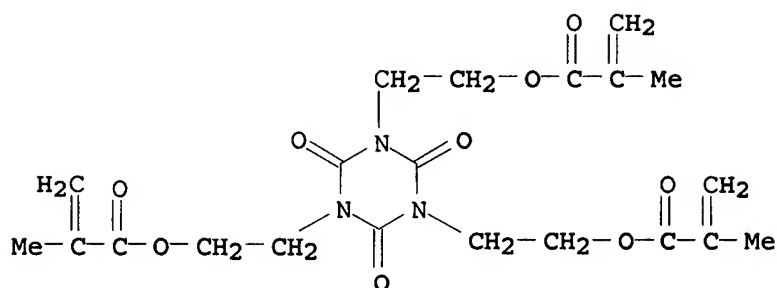
CMF C23 H20 Br4 O4



CM 2

CRN 35838-12-1

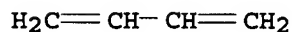
CMF C21 H27 N3 O9



CM 3

CRN 106-99-0

CMF C4 H6



L31 ANSWER 21 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1988:640767 HCAPLUS

DOCUMENT NUMBER: 109:240767

TITLE: Acrylic polymer supports for optical disks

INVENTOR(S): Tsuchida, Satoru; Horie, Takahiro; Saikawa, Tetsuro; Abe, Masamitsu; Ishibashi, Takehiko; Yokono, Haruki

PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

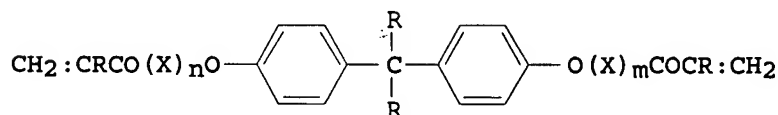
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63087628	A2	19880418	JP 1986-232845	19860930
PRIORITY APPLN. INFO.: GI			JP 1986-232845	19860930



I

AB The optical disk support is made by photohardening of a resin composition comprised of I (R = H, Me; X = OCH<sub>2</sub>CH<sub>2</sub>, CH<sub>2</sub>, OCHMeCH<sub>2</sub>; Y = H, Br, Cl; m + n = 0-30) and ≥1 photopolymerizable compound selected from acrylic monomers, acrylic oligomers, and other vinyl monomers in a space between a glass plate and a stamper. The disk supports show excellent dimensional stability, no optical distortion, and durability.

IC ICM G11B007-24  
ICS C08F020-30; C08F299-00; C08F299-02; C08J005-00

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38

ST bisphenol acrylate polymer optical disk; support acrylic resin optical disk

IT Recording materials  
(optical, acrylic resin supports for)

IT 6606-59-3D, polymers with polyfunctional acrylates 15625-89-5D, polymer with polyfunctional acrylates 53879-54-2D, polymer with polyfunctional acrylates 89297-97-2D, polymer with polyfunctional acrylates 117759-66-7 117778-33-3 117802-61-6 117803-20-0  
RL: USES (Uses)  
(optical recording disk supports from photo-cured)

IT 80-05-7D, Phenol, 4,4'-(1-methylethylidene)bis-, condensation products with methacryloyl alkanols, polymers with polyfunctional acrylates  
RL: USES (Uses)  
(optical recording disk supports from photocured)

IT 117778-33-3 117803-20-0  
RL: USES (Uses)  
(optical recording disk supports from photo-cured)

RN 117778-33-3 HCAPLUS

CN Oxiranecarboxylic acid, (1-methylethylidene)di-4,1-phenylene ester, polymer with 1,6-hexanediyl bis(2-methyl-2-propenoate),  $\alpha, \alpha'$ -[(1-methylethylidene)bis(2,6-dibromo-4,1-phenylene)]bis[ $\omega$ -[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] and 2-[[3-[(2-methyl-1-oxo-2-propenyl)oxy]-2,2-bis[(2-methyl-1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[[(2-methyl-1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

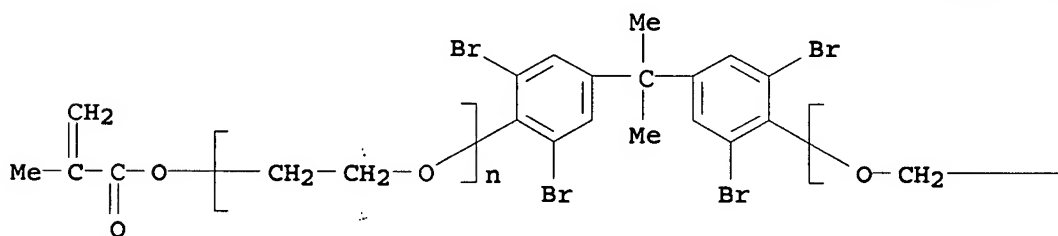
CM 1

CRN 103345-71-7

CMF (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> C23 H20 Br4 O4

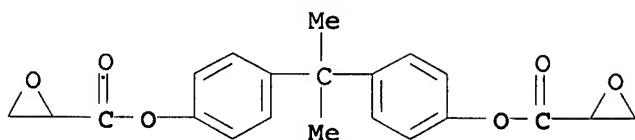
CCI PMS

PAGE 1-A

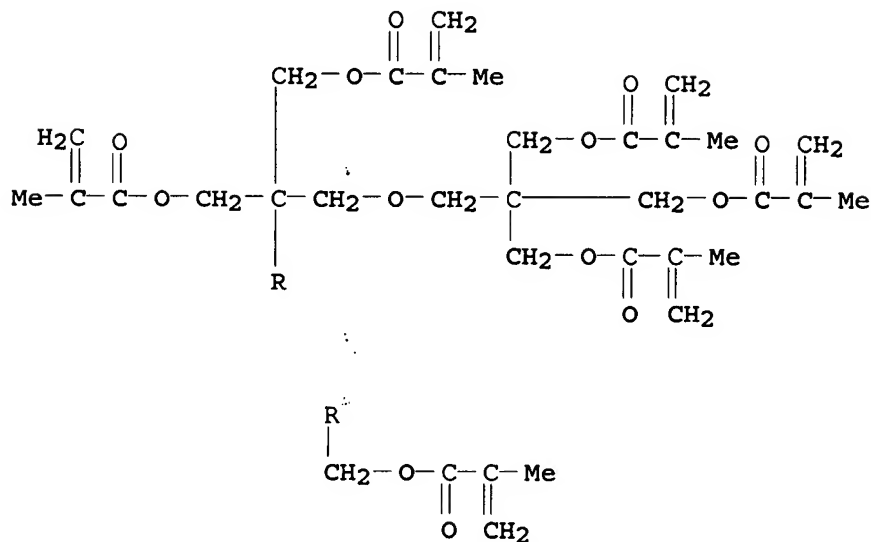


$$\text{---CH}_2\text{---}\left[ \text{---CH}_2\text{---} \right]_n\text{---O---C(=O)---C(=O)Me}$$

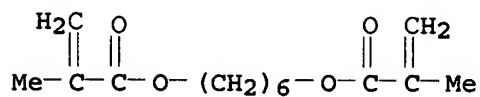
CMF C21 H20 O6



CMF C34 H46 O13



CMF C14 H22 O4



RN 117803-20-0 HCAPLUS

CN Oxiranecarboxylic acid, (1-methylethylidene)di-4,1-phenylene ester, polymer with 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 1,6-hexanediyl bis(2-methyl-2-propenoate) and  $\alpha,\alpha'$ -[(1-methylethylidene)bis(2,6-dibromo-4,1-phenylene)]bis[ $\omega$ -[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

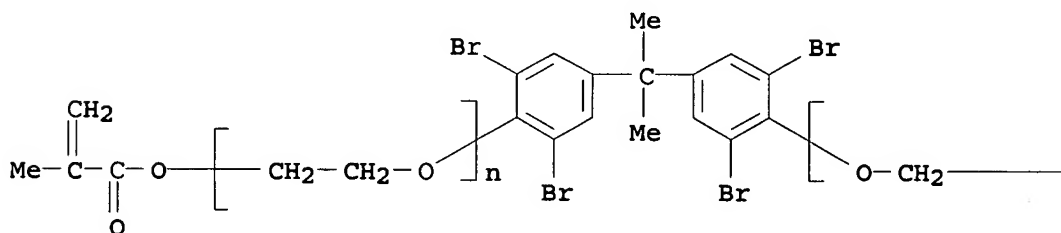
CM 1

CRN 103345-71-7

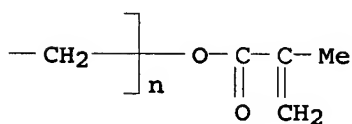
CMF (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> C23 H20 Br4 O4

CCI PMS

PAGE 1-A



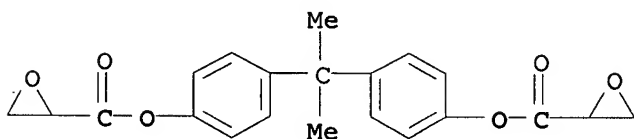
PAGE 1-B



CM 2

CRN 89297-97-2

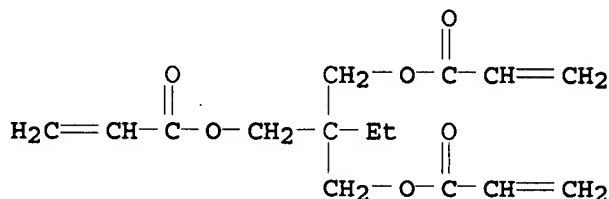
CMF C21 H20 O6



CM 3

CRN 15625-89-5

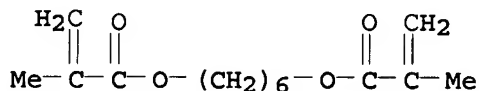
CMF C15 H20 O6



CM 4

CRN 6606-59-3

CMF C14 H22 O4



L31 ANSWER 22 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1987:68851 HCAPLUS

DOCUMENT NUMBER: 106:68851

TITLE: Photocurable flexible inks

INVENTOR(S): Nagahara, Shigenori; Abe, Shunzo; Miyake, Hideo

PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61203108	A2	19860909	JP 1985-42471	19850304
PRIORITY APPLN. INFO.:			JP 1985-42471	19850304

AB A photocurable solder-resistant ink, useful in manufacture of a flexible printed circuit board, comprises a photocurable prepolymer, a bornyl acrylate derivative-based photocurable compound, and a photoinitiator. Thus, a flexible polyimide-Cu foil laminate was printed with an ink composition comprising Ripoxy SP 5003 (bisphenol A-type epoxy acrylate) 29.9, isobornyl methacrylate (I) 20.0, 2-hydroxyethyl methacrylate 7.5, trimethylolpropane triacrylate 7.5, triallyl isocyanurate 10.0, 2-ethylanthraquinone 1.0, talc 20.0, powdered silica 0.1, phthalocyanine green 1.0, a silicone defoamer 1.0, and a leveling agent 2.0 parts and UV-cured to form a resist layer exhibiting crosscut adhesion test 100/100, maximum number of flexion before crack formation (diameter 4 mm) 100, solder resistance (at 260°) ≥60 s, and resistance 2 + 1014 Ω. An ink not containing I gave a layer withstanding solder test



≤10 s.

IC ICM C08F220-10  
ICS C08F002-48; C08F220-18; C09D011-10; H05K003-28

CC 42-10 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 76

ST epoxy acrylate photocurable ink; isobornyl methacrylate photocurable ink; hydroxyethyl methacrylate photocurable ink; methylolpropane triacrylate photocurable ink; allyl isocyanurate photocurable ink; copper flexible printed circuit board; polyimide flexible printed circuit board; solder resistant photocurable ink

IT Polyimides, uses and miscellaneous  
RL: USES (Uses)  
(films, copper foil laminates, solder-resistant inks for, in manufacture of flexible printed circuit boards)

IT Soldering  
(resistance to, of inks containing epoxy or urethane acrylate and isobornyl acrylate, UV-curable)

IT Inks  
(photocurable, epoxy or methane acrylates containing isobornyl acrylate, flexible, solder-resistant)

IT Electric circuits  
(printed, flexible, inks for, epoxy or urethane acrylates containing isobornyl acrylate as, solder-resistant)

IT 7440-50-8, Copper, uses and miscellaneous  
RL: USES (Uses)  
(foil, polyimide film laminates, solder-resistant inks for, in manufacture of flexible printed circuit boards)

IT 106671-00-5 106671-01-6 106671-02-7 106679-65-6  
106686-47-9  
RL: USES (Uses)  
(inks, photocurable, flexible, solder-resistant, in manufacture of printed circuit boards)

IT 106671-02-7  
RL: USES (Uses)  
(inks, photocurable, flexible, solder-resistant, in manufacture of printed circuit boards)

RN 106671-02-7 HCAPLUS

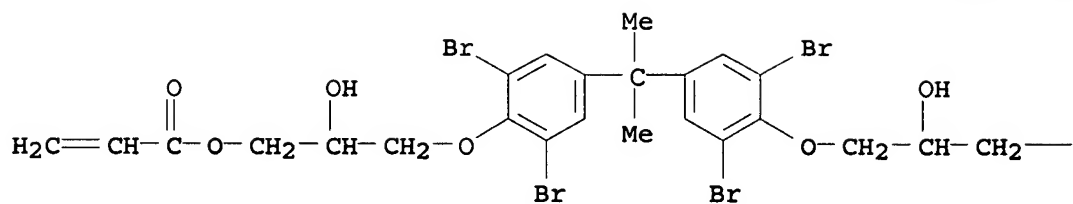
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 2-hydroxyethyl 2-propenoate, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy(2-hydroxy-3,1-propanediyl)] di-2-propenoate, exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-methyl-2-propenoate and 1,3,5-tri-2-propenyl-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

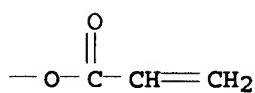
CRN 66696-45-5

CMF C27 H28 Br4 O8

PAGE 1-A



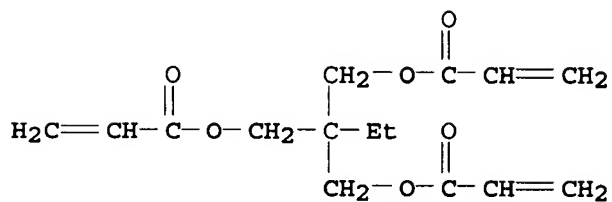
PAGE 1-B



CM 2

CRN 15625-89-5

CMF C15 H20 O6

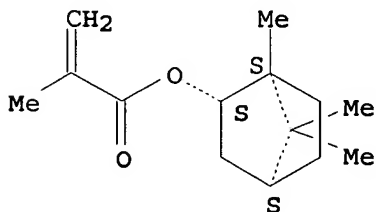


CM 3

CRN 7534-94-3

CMF C14 H22 O2

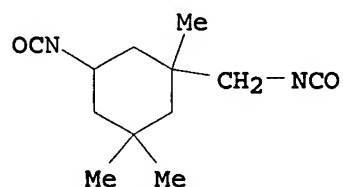
Relative stereochemistry.



CM 4

CRN 4098-71-9

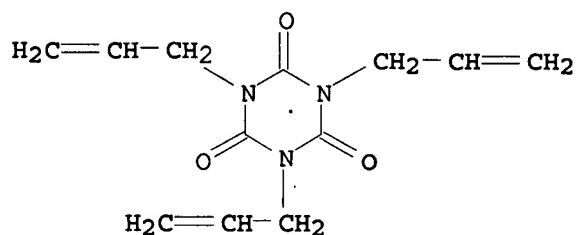
CMF C12 H18 N2 O2



CM 5

CRN 1025-15-6

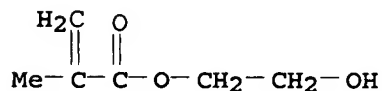
CMF C12 H15 N3 O3



CM 6

CRN 868-77-9

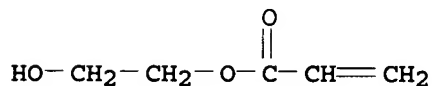
CMF C6 H10 O3



CM 7

CRN 818-61-1

CMF C5 H8 O3



L31 ANSWER 23 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1986:69939 HCAPLUS

DOCUMENT NUMBER: 104:69939

TITLE: Plastic lenses with high refractive index

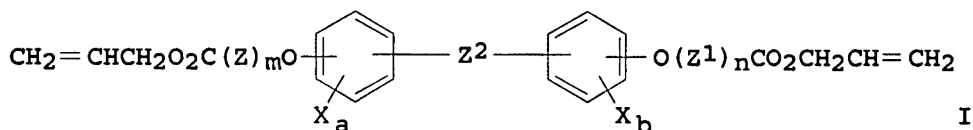
INVENTOR(S): Sano, Yoshio; Mogami, Takao; Deguchi, Hiroichi

PATENT ASSIGNEE(S): Suwa Seikosha Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60151601	A2	19850809	JP 1984-7867	19840119
PRIORITY APPLN. INFO.:			JP 1984-7867	19840119

GI

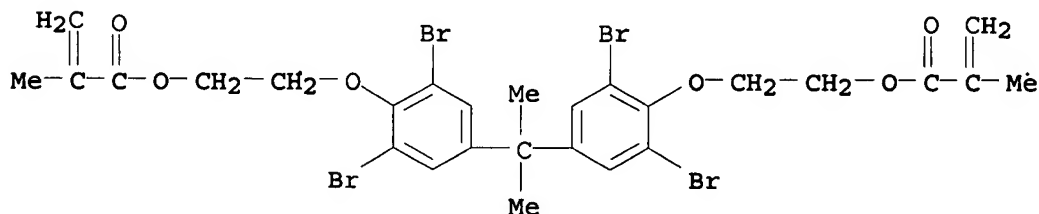


- AB An antireflective lens with high refractive index, scratch resistance, and impact strength is prepared by copolymerizing a diallyl compound I [Z and Z<sup>1</sup> = OCH<sub>2</sub>CH<sub>2</sub>, O(CH<sub>2</sub>)<sub>3</sub>, OCHMeCH<sub>2</sub>, or OCH<sub>2</sub>CH(OH)CH<sub>2</sub>; Z<sub>2</sub> = O, S, SO<sub>2</sub>, or CH<sub>2</sub>CMe<sub>2</sub>; X = halogen (except F); a and b = 1-4; m and n = 0-4] with diallyl phthalate (II), isophthalate, or terephthalate to form a lens and applying a hard polymer coating (1-20 μ) and an antireflective coating (70-200 nm). Thus, a lens prepared by copolymerizing 1 part 2,2-bis[4-[2-(allyloxycarbonyloxy)ethoxy]-3,5-dibromophenyl]propane and 1 part II was coated with a mixture of pentaerythritol tetraacrylate (III) 11, trimethylolpropane triacrylate (IV) 7, diethylene glycol diacrylate 6, 2,2-bis(4-methacryloyloxyethoxy-3,5-dibromophenyl)propane 16, EtOAc 58, benzoin Me ether 1.8, and silicone surfactant 0.2 part, photocured 1 min to give a hard coating (3 μ), coated (9 nm) with a mixture of III 3.6, IV 3.6, ethylene glycol dimethacrylate 3.6, 1,1-dihydroperfluorohexyl acrylate 9, iso-BuCOME 78, and benzoin Et ether 2.2 parts, and photocured 1 min to give a lens which had n = 1.583, reflectivity 2.7%, and heat-distortion temperature 110° and was not scratched after 100 rubbing cycles with steel wool.
- IC ICM G02B001-04  
 ICS C08F218-00; C08F218-18
- CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 42
- ST allyloxycarbonyloxyethoxybromophenylpropane copolymer lens; lens allyl copolymer coating; allyl phthalate copolymer lens; methacryloyloxyethoxybromophenylpropane coating lens; acrylate copolymer coating lens; pentaerythritol acrylate coating lens; trimethylolpropane acrylate coating lens; fluorohexyl acrylate coating lens; ethylene dimethacrylate lens; scratch resistance lens plastic; antireflective lens plastic
- IT Coating materials  
 (acrylate polymers, plastic lenses containing, antireflective, scratch-resistant)
- IT Lenses  
 (plastic, from diallyl monomers, antireflective, scratch- and impact-resistant, with high refractive index)
- IT 93581-16-9 100226-55-9  
 RL: USES (Uses)  
 (coatings, plastic lenses containing, antireflective, scratch-resistant)

IT 81517-52-4 98716-84-8 100226-54-8  
 RL: USES (Uses)  
 (lenses, antireflective and hard coatings for, with high refractive index)  
 IT 100226-55-9  
 RL: USES (Uses)  
 (coatings, plastic lenses containing, antireflective, scratch-resistant)  
 RN 100226-55-9 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy-2,1-ethanediyl] ester, polymer with 2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and oxydi-2,1-ethanediyl di-2-propenoate (9CI) (CA INDEX NAME)

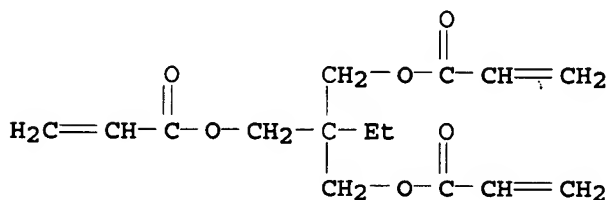
CM 1

CRN 67006-39-7  
 CMF C27 H28 Br4 O6



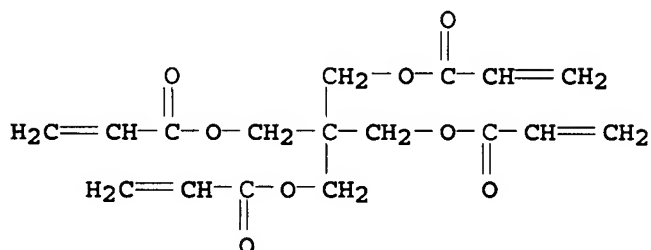
CM 2

CRN 15625-89-5  
 CMF C15 H20 O6



CM 3

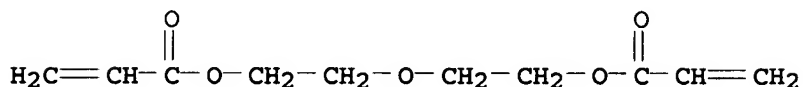
CRN 4986-89-4  
 CMF C17 H20 O8



CM 4

CRN 4074-88-8

CMF C10 H14 O5



L31 ANSWER 24 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1985:438275 HCAPLUS

DOCUMENT NUMBER: 103:38275

TITLE: Plastic lenses

PATENT ASSIGNEE(S): Suwa Seikosha Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60045201	A2	19850311	JP 1983-153655	19830823
PRIORITY APPLN. INFO.:			JP 1983-153655	19830823

AB Scratch-resistant heat-resistant plastic lenses are prepared by 1st coating the surface of a synthetic resin lens having refractive index 1.48-1.55 with a synthetic resin having difference of refractive index between the 2 resins .apprx.0.04 to coating layer thickness 1-20  $\mu$  and then coating the material with a synthetic resin for prevention of light reflection. Thus, diethylene glycol bis(allyl carbonate) polymer (I) [25656-90-0] lens was treated with aqueous 4% NaOH for 3 min, washed, and dried to give a lens with refractive index 1.50. I lens was coated with a hydrolyzed composition containing 25%  $[\gamma$ -(glycidyloxy)propyl]trimethoxysilane (II) dried, coated with a mixture containing colloidal silica 4, tetrabutoxytitanium 5, MeOH 91, and a silicone surfactant 0.1 part, dried, and heat-treated 1 h at 120°. The above lens was coated with a hydrolyzed composition containing 1.5% II and dried to give a scratch-resistant heat-resistant lens with light reflection 2.0%.

IC ICM G02B001-10

ICS G02B001-04

ICA C09D005-00

CC 38-2 (Plastics Fabrication and Uses)

ST polycarbonate lens scratch resistance; heat resistance polycarbonate lens;

light reflection redn polycarbonate lens; siloxane polycarbonate lens coating; silica polycarbonate lens coating

IT Siloxanes and Silicones, uses and miscellaneous  
RL: USES (Uses)  
(in prevention of light reflection of plastic lenses)

IT Polycarbonates  
RL: USES (Uses)  
(lenses, coated with siloxanes and acrylate polymers, scratch-resistant)

IT Lenses  
(polycarbonate or PMMA, coated with siloxanes and silica or acrylate polymers, scratch-resistant)

IT 59419-47-5  
RL: USES (Uses)  
(coatings, on polycarbonate lenses, for increased surface hardness)

IT 7631-86-9, uses and miscellaneous 97273-73-9 97273-74-0  
RL: USES (Uses)  
(coatings, on polycarbonate lenses, for reduced light reflection)

IT 9011-14-7 79394-92-6  
RL: USES (Uses)  
(lenses, coated with siloxanes and acrylate polymers, scratch-resistant)

IT 25656-90-0  
RL: USES (Uses)  
(lenses, coated with siloxanes and silica or acrylate polymers, scratch-resistant)

IT 97273-74-0  
RL: USES (Uses)  
(coatings, on polycarbonate lenses, for reduced light reflection)

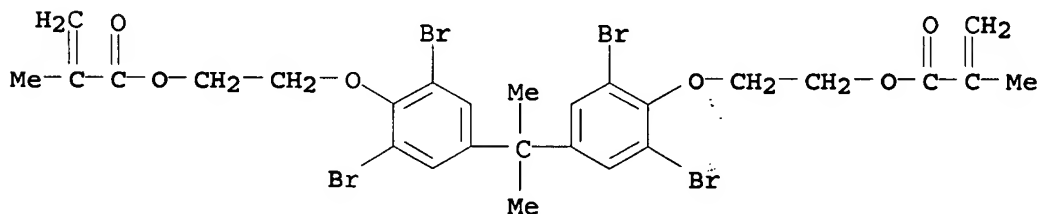
RN 97273-74-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy-2,1-ethanediyl] ester, polymer with 2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 67006-39-7

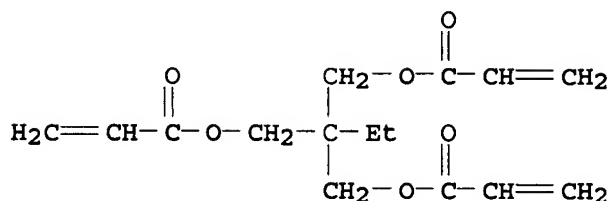
CMF C27 H28 Br4 O6



CM 2

CRN 15625-89-5

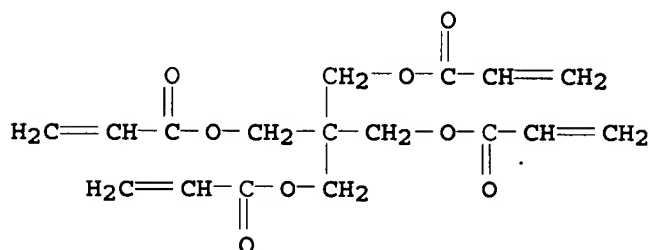
CMF C15 H20 O6



CM 3

CRN 4986-89-4

CMF C17 H20 O8



L31 ANSWER 25 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1985:177571 HCAPLUS

DOCUMENT NUMBER: 102:177571

TITLE: Liquid chemical process for forming conductive through-holes through a dielectric layer

INVENTOR(S): Johnson, Daniel D.

PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co. , USA

SOURCE: U.S., 6 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4501638	A	19850226	US 1983-558308	19831205
PRIORITY APPLN. INFO.:			US 1983-558308	19831205

AB A conductive through-hole is formed by liquid chemical etching a hole completely through a dielec.-sandwiched between conductors and by deforming at least one conductor which has been undercut during the etching. The holes made by chemical etching can be small, e.g. .apprx.25-250  $\mu$ . An example involves the use of a Cu-polymers-Cu/sandwich. The polymer composition includes a styrene-butadiene-acrylonitrile-Me methacrylate copolymer, a Me methacrylate-Et acrylate copolymer, and other acrylates. Methylchloroform was used to remove polymer from the holes, leaving a Cu overhang, which was subsequently collapsed onto the lower Cu layer.

IC ICM C23F001-02

ICS B44C001-22; C03C015-00; B29C017-08

INCL 156644000

CC 76-2 (Electric Phenomena)

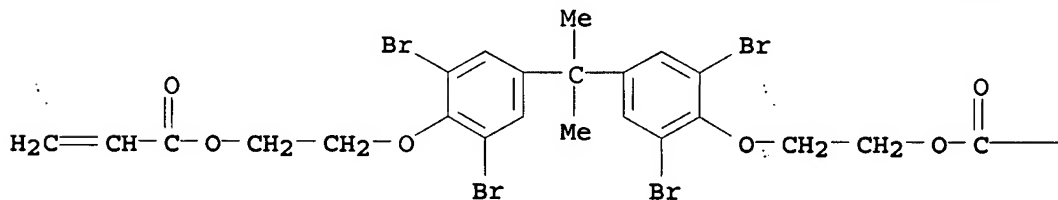


ST : circuit conductive through hole polymer  
 IT Electric insulators and Dielectrics  
 (polymeric, in printed circuits boards, liquid-chemical process for forming through-holes in)  
 IT Electric circuits  
 (printed, liquid-chemical process for forming conductive through-holes through dielec. layer in boards for)  
 IT 95972-73-9 95992-56-6 96029-06-0  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (elec. insulators, in printed circuits boards, liquid-chemical process for forming through-holes in)  
 IT 71-55-6  
 RL: USES (Uses)  
 (in formation of conductive-through-hole through dielec. layer and printed circuit boards)  
 IT 7440-50-8, uses and miscellaneous  
 RL: USES (Uses)  
 (printed circuit boards, liquid-chemical process for forming through-holes through dielec. layer and)  
 IT 9010-88-2  
 RL: USES (Uses)  
 (printed-circuit board, liquid-chemical process for forming conductive through-holes for layer of)  
 IT 96029-06-0  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (elec. insulators, in printed circuits boards, liquid-chemical process for forming through-holes in)  
 RN 96029-06-0 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 1,3-butadiene, ethenylbenzene, ethyl 2-propenoate, 2-(hydroxymethyl)-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy-2,1-ethanediyl] di-2-propenoate, (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] di-2-propenoate and 2-propenenitrile (9CI) (CA INDEX NAME)

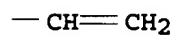
CM 1

CRN 66710-97-2  
 CMF C25 H24 Br4 O6

PAGE 1-A



PAGE 1-B

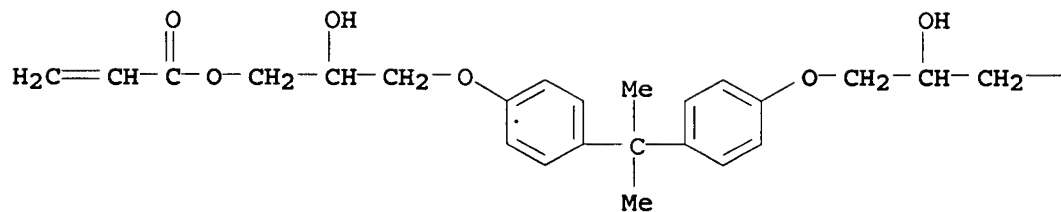


CM 2

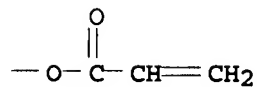
CRN 4687-94-9

CMF C27 H32 O8

PAGE 1-A



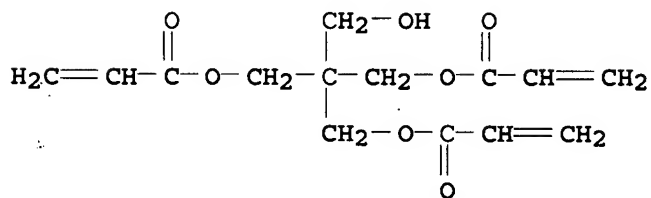
PAGE 1-B



CM 3

CRN 3524-68-3

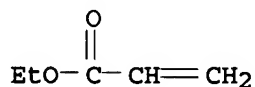
CMF C14 H18 O7



CM 4

CRN 140-88-5

CMF C5 H8 O2



CM 5

CRN 107-13-1

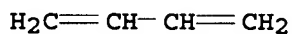
CMF C3 H3 N



CM 6

CRN 106-99-0

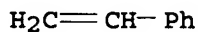
CMF C4 H6



CM 7

CRN 100-42-5

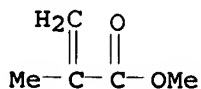
CMF C8 H8



CM 8

CRN 80-62-6

CMF C5 H8 O2



L31 ANSWER 26 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1983:541000 HCAPLUS

DOCUMENT NUMBER: 99:141000

TITLE: Hardened resins

PATENT ASSIGNEE(S): Tokuyama Soda Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 58096614	A2	19830608	JP 1981-194399	19811204
JP 02041525	B4	19900918		

PRIORITY APPLN. INFO.: JP 1981-194399 19811204

AB Hardened resins are prepared from (a) di(meth)acrylates containing halo-substituted aromatic ring (excluding F) and (b) radically polymerizable aliphatic, alicyclic, or heterocyclic compds. These hardened resins have good transparency and are useful as organic glass. Thus, 2,2-bis[4-(2-methacryloyloxyethoxy)-3,5-dibromophenyl]propane 20, Me methacrylate 80, and a radical-polymerization initiator 1 part were heated in a mold to give a hardened resin [87194-08-9] whose nD and transparency were 1.514 and 96%, resp.

IC C08F020-22

CC 37-3 (Plastics Manufacture and Processing)

ST acrylic org glass; haloarom dimethacrylate polymer

IT Glass substitutes

RL: PREP (Preparation)

(haloarom. acrylic polymers, preparation of)

IT 87194-08-9P 87194-09-0P 87194-10-3P 87194-12-5P 87194-13-6P

87194-14-7P 87194-15-8P 87194-16-9P 87194-17-0P 87194-18-1P

87194-19-2P 87194-20-5P 87194-21-6P 87194-22-7P

RL: PREP (Preparation)

(preparation of transparent)

IT 87194-21-6P

RL: PREP (Preparation)

(preparation of transparent)

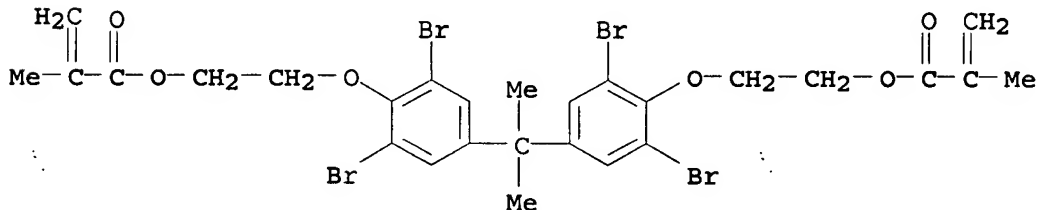
RN 87194-21-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyl-2-[[[(2-methyl-1-oxo-2-propenyl)oxy)methyl]-1,3-propanediyl ester, polymer with (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy-2,1-ethanediyl] bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 67006-39-7

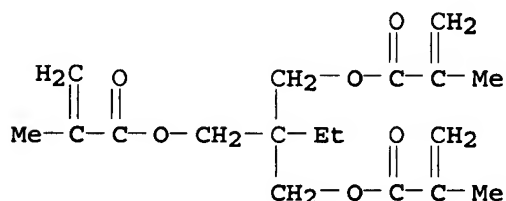
CMF C27 H28 Br4 O6



CM 2

CRN 3290-92-4

CMF C18 H26 O6



L31 ANSWER 27 OF 27 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1978:426114 HCAPLUS

DOCUMENT NUMBER: 89:26114

TITLE: Polyunsaturated halogenated monomers for use in ultraviolet coating systems

INVENTOR(S) : Costanza, John R.; Conciatori, Anthony B.; Lazear,  
Nelson R.

PATENT ASSIGNEE(S) : Celanese Corp., USA

SOURCE: U.S., 6 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

**PATENT INFORMATION:**

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	---	-----	-----
US 4077859	A	19780307	US 1976-729560	19761004

PRIORITY APPLN. INFO.: US 1976-729560 A 19761004

AB TiO<sub>2</sub>-pigmented UV-curable coating compns. are prepared containing 5-85% of a monomer with  $\geq 2$  unsatd. sites,  $\leq 50\%$  of a singly unsatd. compound, 0.05-15% photoinitiator, and 5-50% of a poly(meth)acrylate ester of a polyhalogenated polyol. Thus, 10 parts rutile TiO<sub>2</sub> was ground with 30 parts of a mixture of tetrabromobisphenol A epoxy diacrylate (I) 20, trimethylolpropane triacrylate 30, hexanediol diacrylate 20, 1:1 Et acrylate-Me methacrylate copolymer 25, 2-chlororothioxanthone 1.5, and (HOCH<sub>2</sub>CH<sub>2</sub>)<sub>3</sub>N 3.5 parts. One-mil films of the pigmented composition were cast onto Bonderite 1000 steel panels and cured for 0.5 s under a 100-W, medium-pressure, Hanovia UV lamp to give hard glossy cured polymer [ 66696-46-6] films with excellent adhesion to the substrate. Similar coatings containing no I cured incompletely with poor surface characteristics.

IC C08F002-50

INCL 204159230

CC 42-2 (Coatings, Inks, and Related Products)

ST halogenated monomer light curing coating; acrylate halogenated photocurable coating

IT Coating materials  
(halogenated polyacrylate-containing, UV-curable)

IT 66696-42-2 66696-44-4 66696-46-6

RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, UV-curable pigmented)

IT 66696-44-4 66696-46-6

RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, UV-curable pigmented)

RN 66696-44-4 HCAPLUS

CN 2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 1-ethenyl-2-pyrrolidinone,  $\alpha,\alpha'$ -[(1-methylethylidene)bis(2,6-dibromo-4,1-

phenylene)]bis[ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)]  
and (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]  
di-2-propenoate (9CI) (CA INDEX NAME)

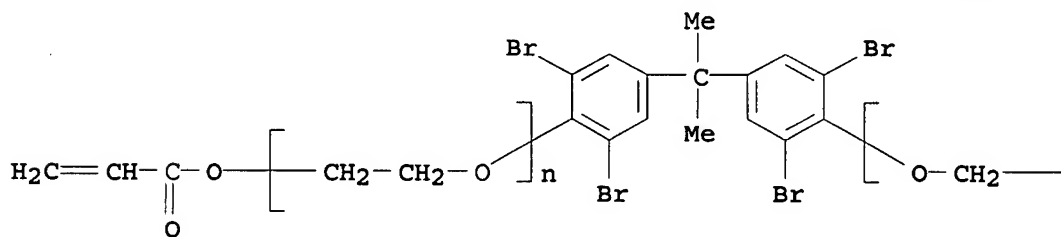
CM 1

CRN 66696-43-3

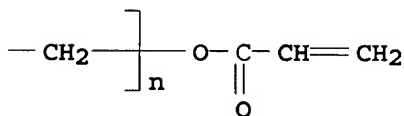
CMF (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> C21 H16 Br4 O4

CCI PMS

PAGE 1-A



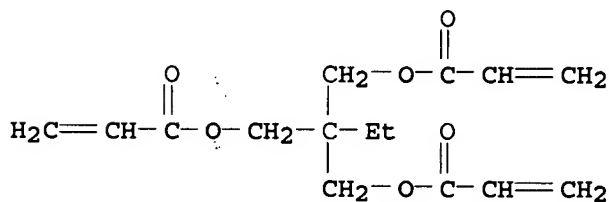
PAGE 1-B



CM 2

CRN 15625-89-5

CMF C15 H20 O6

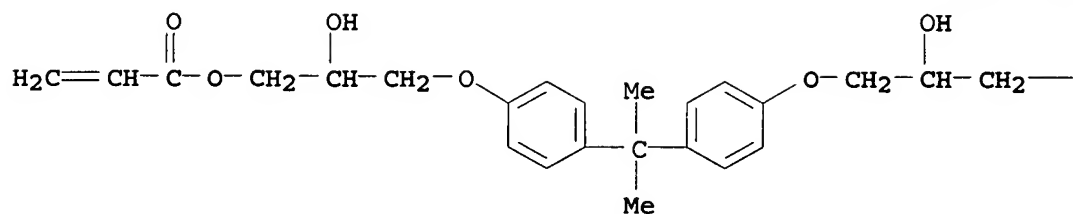


CM 3

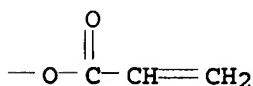
CRN 4687-94-9

CMF C27 H32 O8

PAGE 1-A



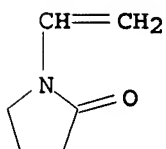
PAGE 1-B



CM 4

CRN 88-12-0

CMF C6 H9 N O



RN 66696-46-6 HCAPLUS

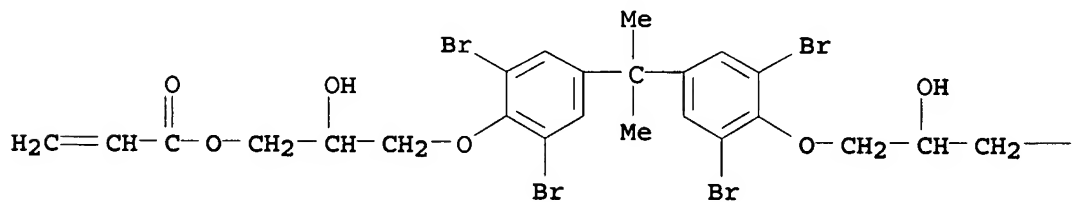
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with  
 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate,  
 ethyl 2-propenoate, 1,6-hexanediyl di-2-propenoate and  
 (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy(2-hydroxy-3,1-  
 propanediyl)] di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 66696-45-5

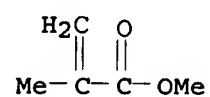
CMF C27 H28 Br4 O8

PAGE 1-A









=>